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Synthesizing information resources for the Virginia Important Bird Area Program: Phase II Western Shore

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SYNTHESIZING INFORMATION RESOURCES FOR THE VIRGINIA IMPORTANT BIRD AREA PROGRAM: PHASE II WESTERN SHORE

CENTER FOR CONSERVATION BIOLOGY
COLLEGE OF WILLIAM AND MARY

THE CENTER FOR CONSERVATION BIOLOGY AT WILLIAM & MARY

Virginia Coastal Zone MANAGEMENT PROGRAM

Audubon

NOAA NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION U.S. DEPARTMENT OF COMMERCE

SYNTHESIZING INFORMATION RESOURCES FOR THE VIRGINIA IMPORTANT BIRD AREA PROGRAM: PHASE II WESTERN SHORE

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Virginia Coastal Zone Management Program
(Department of Environmental Quality)

The Center for Conservation Biology
College of William and Mary

Cover Photo: Bald Eagle Nestlings *by Bryan Watts*

The Center for Conservation Biology is an organization dedicated to discovering innovative solutions to environmental problems that are both scientifically sound and practical within todays social context. Our philosophy has been to use a general systems approach to locate critical information needs and to plota deliberate course of action to reach what we believe are essential information endpoints.

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BACKGROUND

Context

The Important Bird Areas (IBA) program is a science-based initiative designed to identify, conserve, and monitor sites that provide essential habitat for bird populations. Developed in Europe, the program has expanded to become an international network of conservation sites. Under this initiative, sites that are critical for the long-term survival of bird populations have been identified across the globe using internationally agreed upon criteria. The quality and effectiveness of this conservation network depends directly on the information resources and expertise used in its development.

The National Audubon Society with funding from the Virginia Department of Game & Inland Fisheries and other groups has recently established an IBA program in Virginia. The purpose of this program is to identify, establish, and work toward the conservation of locations of importance to birds in Virginia.

Objectives

The primary objective of this project is to utilize existing information resources to delineate important bird areas in coastal Virginia. Information resources will be identified, compiled, and synthesized in order to place geographic locations within the appropriate local, regional, and national context in terms of their importance to bird species of conservation concern. Specific objectives include:

1) to delineate boundaries of IBAs based on available information resources.

2) to nominate areas determined to meet biological criteria to the IBA technical committee for consideration/approval as IBAs.

James River Tidal Fresh Important Bird Area
Fact Sheet

Location: Prince George, Chesterfield, Henrico, Charles City Counties, Hopewell City
Total Size : 47,841 ha (118,167 acres)
Elevation: 0-58 m (0-190 feet)

Site Description: The tidal fresh reach of the James River includes extensive forested wetlands and pristine shorelines embedded within a predominantly rural landscape. The area is near the site of the first European colonization and the uplands have been cultivated for 400 yeas. Many historic plantations still remain intact and represent important lands for conservation. The area has the distinction of being the only major tributary of the Chesapeake Bay region where all three (Bald Eagle, Osprey, Great Blue Heron) of the large piscivorous bird species went extinct during the DDT era likely due to the additional impact of the contaminant kepone that was released into the waterway. The area now contains extensive natural habitats intermingled with industrial complexes and is experiencing increasing pressure for residential development.

Protection: A strategically significant portion of the James River Tidal Fresh Important Bird Area is owned and protected to meet conservation, management, and educational objectives. Important conservation lands include James River National Wildlife Refuge, Presquile National Wildlife Refuge, Kittiwan Wildlife Management Area and Dutch Gap Conservation Area. The Rice Center owned by the Virginia Commonwealth University is dedicated to environmental research and education. Many corporate and private holdings within the area are managed for wildlife.

Double-crested Cormorants

Birds: The tidal fresh reach of the James River supports the densest fish-eating bird assemblage in Virginia. The area supports large and growing populations of breeding Bald Eagles, migrant Bald Eagles, breeding Ospreys, breeding Great Blue Herons, and breeding Double-crested Cormorants. The area is one of the most important locations for Bald Eagles in eastern North America. The area contains extensive forested wetlands that support significant populations of Prothonotary Warblers, Yellow-throated Vireos, and other species within the habitat suite. Surrounding uplands are composed of rural farmlands that support some of the largest grassland bird populations in the coastal plain of Virginia.

Conservation and Threats: Three primary threats are currently of concern including 1) contaminants within the fishery used by piscivorous birds, 2) conversion of open land to residential, and 3) expansion of recreational boating access to sensitive portions of the river. This portion of the river has a history of contaminant problems that led to the decline of all fish-eating birds within the lower James River. Because of the position of these birds within the food web, they will always be vulnerable to new contaminants entering the

system. Due to the role that this location plays in the ecology of Bald Eagle populations along the entire Atlantic Coast, vigilance is warranted. The urban centers of Richmond, Williamsburg, Hopewell and Petersburg have begun to coalesce and impact the rural lands surrounding this area. Waterfront property is particularly vulnerable to future development. Since many of the species that depend on this area are sensitive to development, caution is warranted. The reach of the river between Hopewell and Brandon supports one of the largest concentrations of migrant Bald Eagles in eastern North America. These birds have been shown to be very sensitive to boating activity. Increases in boating activity and the number of boat access points within this stretch will negatively impact migrant eagles.

Important Bird Areas of Virginia

IBA Nomination Form

The Important Bird Area (IBA) program is an international effort to identify, conserve, and monitor a network of sites that provide essential habitat for bird populations. BirdLife International began the IBA program in Europe in 1985. Since that time, BirdLife partners in more than 100 countries have joined together to build the global IBA network. Audubon, the BirdLife Partner in the U.S. has been working since 1995 to identify and conserve hundreds of IBAs all across the United States.

For more information, visit: http://www.audubon.org/bird/iba/index.html
Or contact Aimee Weldon, the Virginia IBA Coordinator
P.O. Box 1089, Ashland, VA 23005 aweldon@audubon.org 804-370-3528
Additional copies of the Nomination Form may be downloaded from www.virginia-iba.org

Thank you for your interest in the Important Bird Areas Program. Please tell us about the areas that you think may meet the criteria by completing as much of this form as possible. Detailed instructions for fields requiring clarification may be found in the **INSTRUCTIONS FOR COMPLETION OF IBA NOMINATION FORM**. It is important that the data and information about the sites are recorded in a standard format, so that they may be accurately evaluated.

I. Nominator Information	
YOUR NAME: **Bryan D. Watts**	PHONE: **(757) 221-2247**
AFFILIATION(if any) **Center for Conservation Biology College of William and Mary**	EMAIL: **bdwatt@wm.edu**
ADDRESS: **PO Box 8795**	
ZIP CITY, STATE, **Williamsburg, VA 23187-8795**	DATE: **9/28/06**

II. Site Details	
SITE NAME: **James River Tidal Fresh**	
CITY,TOWN,COUNTY: **Prince George, Chesterfield, Henricho, Charles City Counties, Hopewell City**	AREA: **47841** (circle one) acres, sq. miles., **hectares**
ELEVATION: Minimum **0** (circle one) feet, **meters**	ELEVATION: Maximum **58** feet, **meters**
COORDINATES (at site center) Latitude **37° 19´ 50"**	Longitude: **-77° 11´ 57"**

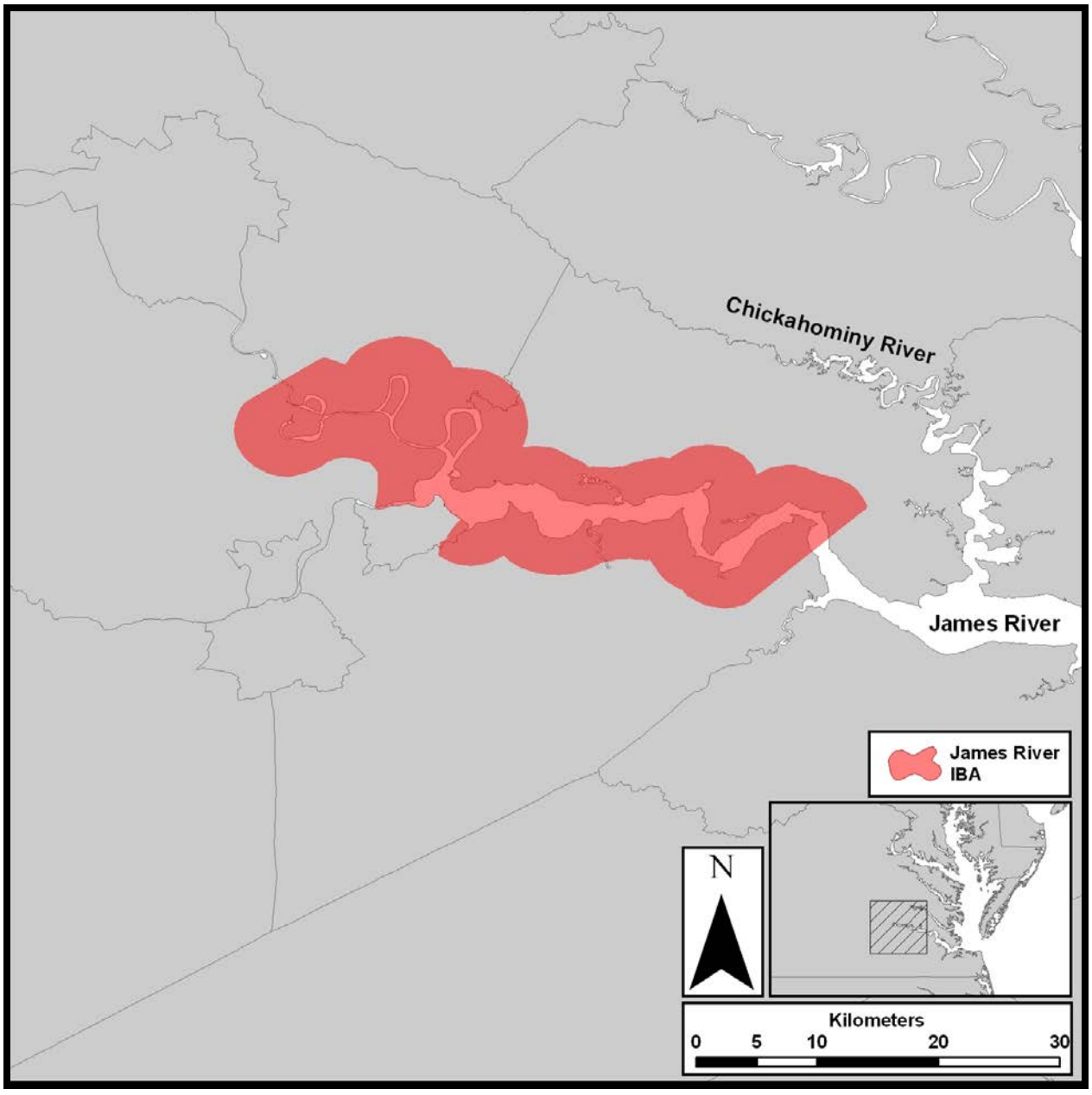
Ownership: (Circle One) **federal, state, private**, international waters, communal, religious group, mixed, other

Ownership Details: (List owners. If "other" ownership, please describe. If the property is privately owned, please provide contact information and specify if owner is aware of nomination)

United States Fish and Wildlife Service
National Park Service

Virginia Department of Game and Inland Fisheries
Virginia Commonwealth University
Chesterfield County
Henrico County
Many private holdings

Road Directions to site (or location /distance to nearest town) Please include a map if convenient.



Site Name: James River Tidal Fresh

III A. Species List and Population Data

List the species of significance. Provide all other information at your disposal (note: Types of Birds Counted is required). Each record should represent a count at the site in a given year. **Please use the following codes when completing this chart.**

1. **Relative Abundance:** Abundant = **A,** Common = **C**, Frequent = **F**, Uncommon = **U**, Rare = **R**, Not available = **NA**
2. **Count:** For all species, enter either **Density** (# per unit of area), please specify ha, acres, sq. mi. or **Max #.** **Max #** is the highest # observed on one visit in a given season. Total season counts may be entered for migrating raptors only.
3. **Types of Birds Counted:** Individuals = **I**, Breeding Pairs = **B**, Adults only = **A** , Males only = **M,** Females only**= F,** Nests = **N**
4. **Reliability/Data quality:** Good = **G**, Medium = **M**, Poor = **P**, Unknown = **Un**
5. **Source:** Enter the number of the source in this box, and list corresponding details of the sources in Source Details (IIIB) section. Sources may include published reports, surveys, personal observations or field notes.

( ) values represent population thresholds per the Virginia IBA instructions.

Species Name	Season Month/Day of Observation	Year of Observation	[1]Relative Abundance	[2]Counts			[3]Types of Birds Counted	[4]Reliability /Data Quality	[5]Source
				All Groups		Migrating Raptors Only			
				Density # /___ area	Max # / visit	Total Season Count			
Peregrine Falcon	Spring	2005			**1**[a]		B	G	1
Loggerhead Shrike	Summer	1998			**1**[b](2)		B	M	2
Loggerhead Shrike	Winter	1991			**3**[c](3)		I	Un	3
American Black Duck	Summer	1995			**5**[d](5)		B	M	4
Bald Eagle (breeding)	Spring	2006			**42**[e](30)		B	G	5
Bald Eagle (summer)	Summer	2006			**287**[f](100)		I	G	6, 7, 8
Bald Eagle (winter)	Winter	1999			**110**[g](100)		I	G	9
King Rail	Summer	1997			**<4**[h](30)		B	Un	
Least Bittern	Summer				**?**[i](20)				
Northern Harrier	Summer	1996			**1**[j]		B	G	10
Northern Harrier	Winter	2002			**27**[k]**(?)**		I	Un	11
Barn Owl	Summer	1997			**6**[l](5)		B	M	12
American Woodcock	Summer				**?**[m](50)				
Red-hded Woodpecker	Winter	1998			**20**[n](60)		I	Un	13

Rusty Blackbird	Winter	1991			**55**[o](200)		I	Un	14
Whip-poor-will	Summer		**U**[p](500)						
Northern Bobwhite	Summer		**U**[q](100)						
Wood Thrush	Summer		**C**[r](1000)						15, 16
Prothonotary Warbler	Summer				**524**[s](430)				17, 18
Worm-eating Warbler	Summer		**U**[t](100)						
Prairie Warbler	Summer		**C**[u](500)						
Louisiana Waterthrush	Summer		**U**[v](200)						
Kentucky Warbler	Summer		**R**[w](200)						
Eastern Meadowlark	Summer		**C**[x](200)						
Grasshopper Sparrow	Summer		**C**[y](200)						
Field Sparrow	Summer		**C**[z](200)						
Osprey	Summer	2006			**178**[aa]		B	G	19,20
Colonial Species									
Cliff Swallow	Summer	2005			**1036**[bb]		B	G	21, 22
Bank Swallow	Summer	1995			**53**[cc]		B	G	23
Great Blue Heron	Spring	2003			**688**[dd]		B	G	24
Great Egret	Spring	2003			**24**[ee]		B	G	24
Double-cr Cormorant	Summer	2003			**267**[ff]		B	G	24, 25

[a]Single nesting pair on bridge represents 5% of Virginia breeding population.
[b]Last known nesting pair in coastal plain. Population has declined precipitously. Area represents recent stronghold for species in physiographic area.
[c]Last stronghold for wintering birds in coastal plain.
[d]Scattered pairs nest in offshore duck blinds. Population has not been fully assessed.
[e]Area accounts for nearly 10% of state population. Breeding population increasing. Site supports one of the densest breeding populations in the mid-Atlantic.
[f]Over-summering migrants from Southeast. Numerous communal roosts. Site represents one of the most important summer concentrations in Eastern North America.
[g]Over-wintering migrants from Northeast. Several communal roosts.
[h]Species occurs, habitat is very limited locations. Population has not been assessed.
[i]Species occurs within the area in very limited numbers. No population estimate has been attempted.
[j]Pair observed on Curles Neck Farm and on Fort Lee in recent years. Rare breeder on Coastal Plain.

[k]Christmas count represents small fraction of overall area. Common wintering bird. Regular on Hopewell Christmas Count.
[l]Pairs have historically nested on the large plantations in farm structures and on the James in offshore duck blinds. Update on status is needed.
[m]Extensive habitat for this species within the area. Area likely meets population threshold. No population estimate.
[n]Area almost certainly meets population threshold. No population estimate has been attempted in broader area.
[o]Area very likely to meet population threshold. Regular on Hopewell Christmas Count. No population estimate for broader area.
[p]Area not likely to meet population threshold. Species is regular breeder. No population estimate has been made.
[q]Area may meet population threshold. Species has declined dramatically. No population estimate is available.
[r]Area may make population threshold. Two studies covering small fraction of area suggest large population. No overall population estimate.
[s]Extensive habitat for this species within area. Population has been bolstered by large nest box program. No population estimate for entire area but population threshold is met.
[t]Occurs widely throughout area but no population estimate available. Not likely to meet population threshold.
[u]Common breeder throughout area but no population estimate available. Area likely meets population threshold.
[v]Uncommon breeder throughout area but no population estimate available. Area not likely to meet population threshold.
[w]Uncommon breeder throughout area but no population estimate available. Area not likely to meet population threshold.
[x]Extensive habitat throughout area for this species. No population estimate available but likely in the thousands.
[y]Extensive habitat throughout area for this species. No population estimate available but likely in the thousands.
[z]Common breeder throughout area but no population estimate available. Area likely to meet population threshold.
[aa]Area supports one of the fastest growing populations in Chesapeake Bay. Increased from 73 pairs in 1995 to 178 in 2006.
[bb]Area supports largest known colony in state. Population is expanding in coastal plain.
[cc]Area supports one of last remaining colonies in natural shoreline in coastal Virginia. Population is declining in coastal plain.
[dd]Area supports several colonies including 7% of state population.
[ee]Area supports an increasing population mixed in with Great Blue Heron colonies.
[ff]Area supports first breeding colony in the state. Area accounts for 25% of state population.

III B. Source Details

Detail the sources of data noted in the "Species List and Population Data" (III A) Section. If additional space is needed, you may attach copies of this form to the nomination.

1. Watts, B. D., Padgett, S. M., M. A. Byrd, and E. C. Long. 2005. Virginia Peregrine Falcon monitoring and management program: Year 2005 report. Center for Conservation Biology Technical Report Series, CCBTR-05-09. College of William and Mary, Williamsburg, VA. 12 pp.

2. Watts, B. D. and E. R. Scholle. 1999. Observations of nesting Loggerhead Shrikes in Prince George County. *The Raven* 72:50-52.

3. Kain, T. 1992. Virginia Christmas Bird Counts – 1991-1992 season. The Raven 63:35-66.

4. Watts, B. D. A survey of duck blinds for nesting birds within the Chesapeake Bay. Unpublished data.

5. Watts, B. D. and M. A. Byrd. 2006. Virginia Bald Eagle nest and productivity survey: Year 2006 report. Center for Conservation Biology Technical Report Series, CCBTR-06-11. College of William and Mary, Williamsburg, VA 31 pp.

6. Watts, B. D. and M. U. Watts. Survey of the James River Bald Eagle Concentration Area. Unpublished data.

7. Watts, B. D. and M. A. Byrd. 1999. Expansion of the James River Bald Eagle concentration Area. *The Raven*. 70:18-23.

8. Watts, B. D. and D. M. Whalen. 1997. Interactions between Eagles and Humans in the James River Bald Eagle Concentration Area. Center for Conservation Biology Technical Report, CCBTR-97-02. College of William and Mary, Williamsburg, VA. 81pp.

9. Watts, B. D. and M. D. Wilson. A survey of the James River Bald Eagle Concentration Area during winter. Unpublished data.

10. Watts, B. D. and S. J. Rottenborn. 2002. Status of breeding Northern Harriers in coastal Virginia. *The Raven* 72:153-157.

11. Kain, T. 2003. Virginia Christmas Bird Counts: 2002-2003 season. *The Raven* 74:18-63.

12. Watts, B. D. and D. M. Whalen. 2005. An evaluation of nest box use by Common Barn Owls in Virginia. *The Raven* 75:71-77.

13. Kain, T. 1999. Virginia Christmas Bird Counts: 1998-1999 season. *The Raven* 70:53-86.

15. Watts, B. D. 1999. An investigation of the breeding-bird community within the Fort Lee Army Installation. Center for Conservation Biology Technical Report Series, CCBTR-99-04. College of William and Mary, Williamsburg, VA. 39pp.

16. Wilson, M. D. 2006. Avian survey of the Virginia Commonwealth University Rice Center. Center for Conservation Biology Technical Report Series, CCBTR-06-02. College of William and Mary, Williamsburg, VA 39 pp.

17. 2004 prothonotary warbler banding data for Deep Bottom Park(Four-mile Creek) and Presquile NWR were collected under the supervision of Dr. Charles R. Blem, Dept. of Biology at VCU, federal master bander permit #9925. Data collected April-August 2004.

18. 2004 prothonotary warbler banding data for Dutch Gap Conservation Area were collected by Dr. Robert J. Reilly, Dept. of Economics at VCU, federal master bander permit # 22751. Data collected April-August 2004.

19. Watts, B. D., M. A. Byrd, and M. U. Watts. 2004. Status and distribution of breeding Ospreys in the Chesapeake Bay: 1995-1996. *Journal of Raptor Research* 38:47-54.

20. Watts, B. D. and M. U. Watts. Survey of the James River Osprey population. Unpublished data.

21. Watts, B. D., M. A. Byrd, and M. U. Watts. 1996. Status and distribution of Cliff Swallows in coastal Virginia. *The Raven* 67:21-24.

22. Williams, B., B. D. Watts, and M. A. Byrd. A census of a Cliff Swallow colony on the Benjamin Harrison Bridge. *The Raven*, In press.

23. Watts, B. D., M. U. Watts, and M. A. Byrd. Survey of Chesapeake Bay for Bank-nesting birds. Unpublished Data.

24. Watts, B. D. 2004. Status and distribution of colonial waterbirds in coastal Virginia: 2003 breeding season. CCBTR-04-06. Center for Conservation Biology, College of William and Mary, Williamsburg, VA 25 pp.

25. Watts, B. D. and D. S. Bradshaw. 1996. Population expansion by Double-crested Cormorants in Virginia. *The Raven* 67:75-78.

IV. IBA Criteria

Proposed State Level Criteria – Mark all that apply
See Instruction IV for **Explanations of Criteria**.

Code	State Definition	Mark all criteria that apply
D 1.	Endangered, threatened, or vulnerable species: The site sustains a breeding or non-breeding population of one or more bird species, sub-species, or isolated populations that is/are endangered, threatened or vulnerable to extirpation.	Yes
D 3.	The site contains a significant suite of species associated with a habitat type that is representative, rare, or threatened in Virginia.	Yes
D 4.	The site contains a significant concentration of one or more species during the breeding season, winter, or during migration.	Yes

V. Habitat Details

See Instruction **V** for **List of Habitats** at both levels below.

	Major vegetation community types	Predominant plant species	Cover %
1.	Mixed Forest	Loblolly pine	18768 ha
		Various oaks, red maple, ashes, hickories	
		Bald cypress	
2.	Row Crops Idle Grassland	Corn, soy beans, cotton	11873 ha
		Various grass species	
3.	Forested Wetlands	Bald cypress	4343 ha
		Red maple	
4.	Tidal Fresh Marshes	*Peltandra*	848 ha
		Wild rice	

Site Name: James River Tidal Fresh

VI. Land Use

See Instruction VI for description of **Land Uses**. Mark each land use at the site, circle its predominance, and (if known) provide an estimate of the percent cover at the site currently devoted to the land use. You may enter brief notes to clarify some land uses. Detailed explanations of land uses should be reported in Text Summary, section IX.

Check Here	Land Use	Predominance			Cover %	Notes
X	Agriculture 1. Row crops, small grains	**Major**	Minor	Unknown	9%	
	Agriculture 2. Grasslands (pasture, hay)	**Major**	Minor	Unknown	16%	
X	Fisheries/aquaculture	Major	**Minor**	Unknown		
X	Forestry	Major	**Minor**	Unknown		
X	Hunting	**Major**	Minor	Unknown		
	Military	Major	**Minor**	Unknown		Limited boat training
X	Nature Conservation / research	**Major**	Minor	Unknown	12%	
	Not utilized	Major	Minor	Unknown		
	Other	Major	Minor	Unknown		
X	Tourism / recreation	Major	**Minor**	Unknown		
	Unknown	Major	Minor	Unknown		
X	Urban / industrial / transport	Major	Minor	Unknown	8%	
	Water management	Major	Minor	Unknown		

VII. Threats

See Instruction VII for description of **Threat Codes.** Indicate all threats and the relative level of the threat by entering (L) Low, (M) Medium, (H) high, (U) Unknown in front of all that apply. You may enter notes to clarify some threats. However, detailed explanations of threats should be reported in Text Summary, section IX.

Enter L,M,H,U	Threat	Notes
L	Abandonment/land management reduction	
L	Agricultural expansion/intensification	
H	Aquaculture/fisheries	Contamination of fisheries (prey base)
L	Burning of vegetation	
L	Dam/dyke/barrage construction/operations	
M	Disturbance to birds	Boating activity
L	Draining wetlands	
L	Dredging/canal building (irrigation)	
L	Filling wetlands	
L	Forest grazing (by native or domestic herbivores)	
L	Groundwater extraction	
M	Industrialization/urbanization	Residential development
M	Infrastructure (roads, power lines, cell towers, etc.)	Residential development
L	Intensified forest management (please elaborate)	
L	Isolation/fragmentation	
M	Mineral/oil/peat extraction	Sand mining
M	Natural events	Erosion of tidal fresh marshes

M	Nonnative (exotic) animal/plant introduction	Expansion of exotics
L	Other	
L	Pesticide application (non-agricultural)	
L	Plantation forestry (Afforestation) on previously open land	
L	Recreation/tourism	
L	Unsustainable exploitation of birds	

VIII. Protected Areas

Complete only if this site contains or abuts protected area(s)!

Enter name and descriptions of protected areas contained within or adjacent to this site.
See **Instruction VIII**

1. Name of protected area: James River National Wildlife Refuge – U.S. Fish and Wildlife Service	
Designation:	**Area:** circle one: hectares, acres, sq. miles **1173.1**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, Is contained by IBA, **Overlaps with IBA**, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles **1173.1**

2. Name of protected area: Presquile National Wildlife Refuge – U.S. Fish and Wildlife Service	
Designation:	**Area:** circle one: **hectares,** acres, sq. miles **527.9**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles **527.9**

3. Name of protected area: Dutch Gap Conservation Area – Chesterfield County	
Designation:	**Area:** circle one: **hectares,** acres, sq. miles **224.3**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one**: hectares**, acres, sq. miles **224.3**

4. Name of protected area: VCU Rice Center – Virginia Commonwealth University	
Designation:	**Area:** circle one: **hectares**, acres, sq. miles **136.4**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one**: hectares**, acres, sq. miles **136.4**

5. Name of protected area: Kittiwan Wildlife Management Area – Virginia Department of Game and Inland Fisheries	
Designation:	**Area:** circle one**: hectares**, acres, sq. miles

	118.7
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles **118.7**

6. Name of protected area: Brown-Williamson Chesterfield Park – Chesterfield County	
Designation:	**Area:** circle one: **hectares**, acres, sq. miles **104.5**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles **104.5**

7. Name of protected area: Harrison Lake National Fish Hatchery – U.S. Fish and Wildlife Service	
Designation:	**Area:** circle one: **hectares,** acres, sq. miles **44.2**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, Is contained by IBA, **Overlaps with IBA**, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles **44.2**

8. Name of protected area: Richmond National Battlefield Park – National Park Service	
Designation:	**Area:** circle one**: hectares**, acres, sq. miles **26.3**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, Is contained by IBA, **Overlaps with IBA,** Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles **26.3**

8. Name of protected area: Deep Bottom County Park – Henricho County	
Designation:	**Area:** circle one**: hectares**, acres, sq. miles **25.4**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles **25.4**

8. Name of protected area: Petersburg National Battlefield – National Park Service	
Designation:	**Area:** circle one: **hectares,** acres, sq. miles **3.4**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, Is contained by IBA, **Overlaps with IBA**,	**Overlap:** circle one: **hectares**, acres, sq. miles

Unknown	**3.4**

IX. Text Summary

Use the following space for additional descriptions of site details.

General Site Description: The tidal fresh reach of the James River included in this IBA extends from Brandon just above the mouth of the Chickahominy River to just above Dutch Gap. This portion of the James supports the densest piscivorous bird community in Virginia. The area supports large and growing populations of breeding Bald Eagles, migrant Bald Eagles, breeding Ospreys, breeding Great Blue Herons, and breeding Double-crested Cormorants. The area is one of the most significant Bald Eagle areas along the Atlantic Coast. The area also contains extensive forested wetlands that support significant populations of Prothonotary Warblers, Yellow-throated Vireos, and other species within the habitat suite. Surrounding uplands are composed of rural farmlands that support some of the largest grassland bird populations in the coastal plain.

General Ornithological Information: The lower James River and surrounding lands has been the focus of bird surveys and research primarily since the early 1960s when Bald Eagle breeding surveys were initiated. Surveys of colonial waterbirds have been conducted since the mid-1970s. Work with migrant Bald Eagles was initiated in the early 1980s including the identification of communal roosts and investigation of eagle-human interactions. Barn Owl management and research was also conducted in the 1980s. A large, long-term research project investigating the breeding ecology of the Prothonotary Warbler was also initiated during the 1980s. A systematic survey of exposed banks, duck blinds, and Osprey was conducted in 1995. Surveys of birds within refuge and other conservation lands have been conducted in recent years. Although many studies have been conducted within this area, population estimates for several species of conservation concern have not been produced.

Research / conservation projects: A large number of research and conservation projects have been conducted within this area over the past few decades.

Habitat / Land Use: The delineated area includes most of the tidal fresh reach of the James River, associated emergent and forested wetlands, and the surrounding rural landscape that includes extensive farmland and mixed forest. Landuse is primarily farming with an increasing component of residential and urban development.

Other Flora / Fauna:

Protected Areas: An important portion of the area is owned and protected to meet conservation, management, and educational objectives. Holders include the U.S. Fish and Wildlife Service, National Park Service, Virginia Department of Game and Inland Fisheries, Virginia Commonwealth University, Chesterfield County and Henrico County.

Threats: Three primary threats are currently of concern including 1) contaminants within the fishery used by piscivorous birds, 2) conversion of open land to residential, and 3) expansion of recreational boating access to sensitive portions of the river. This portion of the river has a history of contaminant problems that led to the decline of all fish-eating birds within the lower James River. Because of the position of these birds within the food web, they will always be

vulnerable to new contaminants entering the system. Due to the role that this location plays in the ecology of Bald Eagle populations along the entire Atlantic Coast, vigilance is warranted. The urban centers of Richmond, Williamsburg, Hopewell and Petersburg have begun to coalesce and impact the rural lands surrounding this area. Waterfront property is particularly vulnerable to future development. Since many of the species that depend on this area are sensitive to development, caution is warranted. The reach of the river between Hopewell and Brandon supports one of the largest concentrations of migrant Bald Eagles in eastern North America. These birds have been shown to be very sensitive to boating activity. Increases in boating activity and the number of boat access points within this stretch will negatively impact migrant eagles.

Pamunkey and Mattaponi Rivers Important Bird Area
Fact Sheet

Location: New Kent, King William, King & Queen, and Hanover Counties
Total Size : 55,931 ha (138,150 acres)
Elevation: 0-54 m (0-177 feet)

Site Description: The tidal fresh reach of the York River begins near the confluence of the Pamunkey and Mattaponi Rivers and extends westward to below the crossing of Route 360. This area supports one of the largest complexes of brackish to tidal fresh marshes in North America. The surrounding landscape is home to the Pamunkey and Mattaponi Indian tribes and contains several historic plantations. Until recently, the area has experienced less pressure for residential development compared to other jurisdictions within the region. Uplands remain predominantly rural and are used for agriculture and forestry. The waterways support extensive forested wetlands.

Tidal Fresh Marsh

Protection: The area has relatively few parcels of land within protected status with owners including The Nature Conservancy, the Pamunkey Tribe, and the Mattaponi Tribe. However, large tracts of both upland and wetland in private ownership are under progressive management for wildlife including birds.

Birds: The oligohaline and tidal-fresh marshes of the lower Pamunkey and Mattaponi Rivers likely support the largest population of King Rails and Least Bitterns in Virginia. These marshes also support thousands of staging Soras and Tree Swallows during fall migration and high concentrations of waterfowl during winter. Forested wetlands support several species of neotropical migrants during the breeding season and are important stopover habitats during fall migration. These patches support large communal roosts of mixed blackbirds during the winter including the Rusty Blackbird. The waterways support significant and growing populations of Bald Eagles and Osprey. The site has not been a major area of bird research and much remains to be learned about its appropriate role in bird conservation.

Conservation and Threats: There are two primary threats that are currently of concern including 1) the loss of marshes to sea-level rise and 2) the conversion of open land to residential development. Over the past decade, the oligohaline marshes have begun to exhibit a transition in vegetational composition related to sea-level rise. Sediment deposition is not keeping pace with subsidence and sea-level rise causing a lowering of the marsh surfaces and a corresponding shift in the vegetation community. This drowning of the marsh will result in a shift in the associated bird community. Because this marsh type is rare within the region, changes will continue to be cause for concern. Until recently, the upland landscape within the area has remained rural with

relatively little development pressure. Since 2000 there has been an increase in residential development, particularly along primary shorelines. Many of the species that depend on habitats within the area are sensitive to development.

Important Bird Areas of Virginia

IBA Nomination Form

The Important Bird Area (IBA) program is an international effort to identify, conserve, and monitor a network of sites that provide essential habitat for bird populations. BirdLife International began the IBA program in Europe in 1985. Since that time, BirdLife partners in more than 100 countries have joined together to build the global IBA network. Audubon, the BirdLife Partner in the U.S. has been working since 1995 to identify and conserve hundreds of IBAs all across the United States.

For more information, visit: http://www.audubon.org/bird/iba/index.html
Or contact Aimee Weldon, the Virginia IBA Coordinator
P.O. Box 1089, Ashland, VA 23005 aweldon@audubon.org 804-370-3528
Additional copies of the Nomination Form may be downloaded from www.virginia-iba.org

Thank you for your interest in the Important Bird Areas Program. Please tell us about the areas that you think may meet the criteria by completing as much of this form as possible. Detailed instructions for fields requiring clarification may be found in the **INSTRUCTIONS FOR COMPLETION OF IBA NOMINATION FORM**. It is important that the data and information about the sites are recorded in a standard format, so that they may be accurately evaluated.

I. Nominator Information	
YOUR NAME: **Bryan D. Watts**	PHONE: **(757) 221-2247**
AFFILIATION(if any) **Center for Conservation Biology College of William and Mary**	EMAIL: **bdwatt@wm.edu**
ADDRESS: **PO Box 8795**	
ZIP CITY, STATE, **Williamsburg, VA 23187-8795**	DATE: **11/29/06**

II. Site Details	
SITE NAME: **Pamunkey and Mattaponi Rivers**	
CITY,TOWN,COUNTY: **New Kent, King William, King & Queen, and Hanover Counties**	AREA: **55, 931** (circle one) acres, sq. miles., **hectares**
ELEVATION: Minimum **0** (circle one) feet, **meters**	ELEVATION: Maximum **53.8** feet, **meters**
COORDINATES (at site center) Latitude **37° 35' 45"**	Longitude: **-76° 57' 20"**

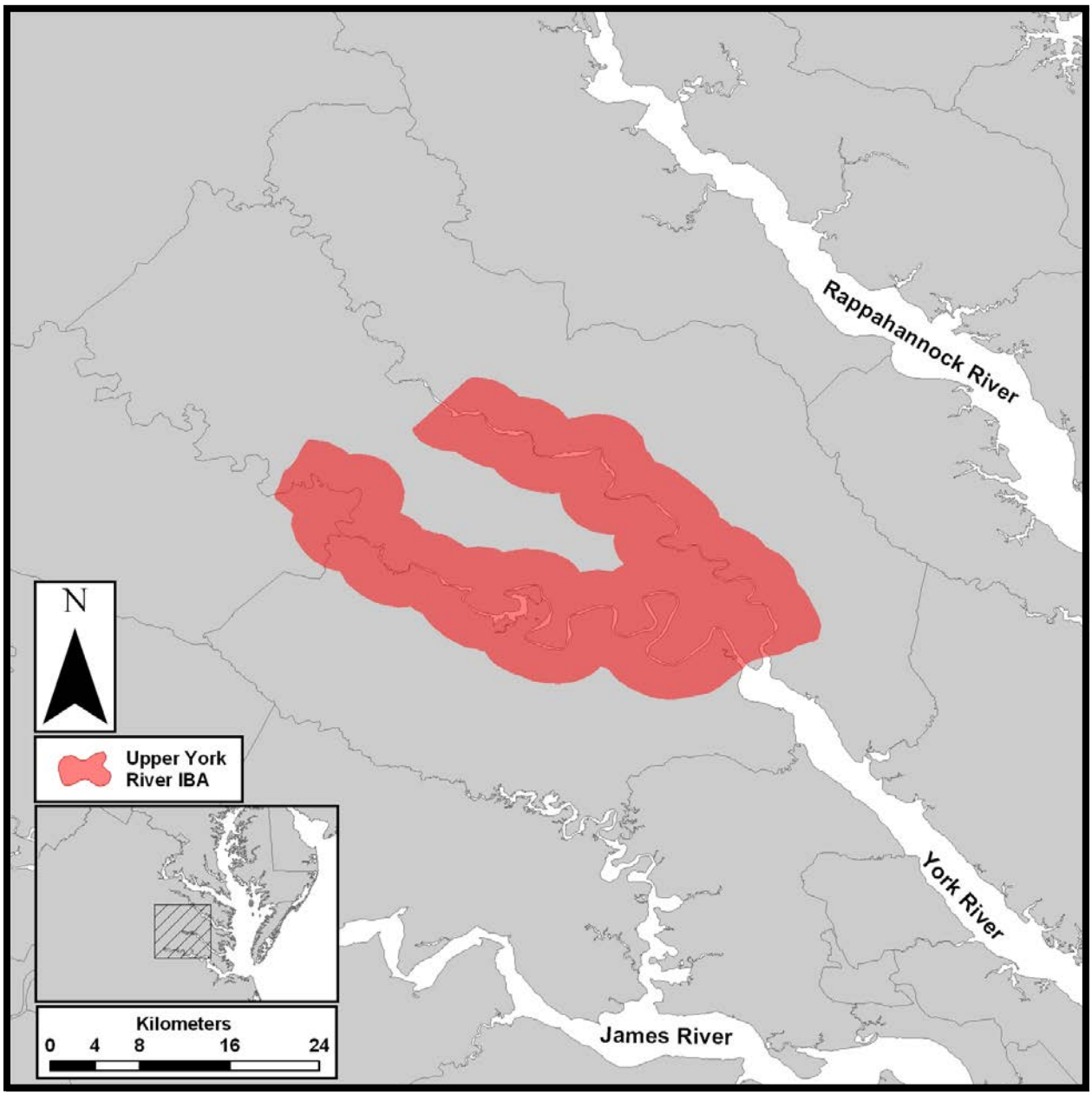
Ownership: (Circle One) **federal,** state, **private**, international waters, communal, religious group, mixed, other

Ownership Details: (List owners. If "other" ownership, please describe. If the property is privately owned, please provide contact information and specify if owner is aware of nomination)

Pamunkey Indian Tribe
Mattaponi Indian Tribe

The Nature Conservancy
Many private holdings

Road Directions to site (or location /distance to nearest town) Please include a map if convenient.



Site Name: Pamunkey and Mattaponi Rivers

III A. Species List and Population Data

List the species of significance. Provide all other information at your disposal (note: Types of Birds Counted is required). Each record should represent a count at the site in a given year. **Please use the following codes when completing this chart.**

1. **Relative Abundance:** Abundant = **A,** Common = **C**, Frequent = **F**, Uncommon = **U**, Rare = **R**, Not available = **NA**
2. **Count:** For all species, enter either **Density** (# per unit of area), please specify ha, acres, sq. mi. or **Max #.** **Max #** is the highest # observed on one visit in a given season. Total season counts may be entered for migrating raptors only.
3. **Types of Birds Counted:** Individuals = **I**, Breeding Pairs = **B**, Adults only = **A** , Males only = **M,** Females only**= F,** Nests = **N**
4. **Reliability/Data quality:** Good = **G**, Medium = **M**, Poor = **P**, Unknown = **Un**
5. **Source:** Enter the number of the source in this box, and list corresponding details of the sources in Source Details (IIIB) section. Sources may include published reports, surveys, personal observations or field notes.

( ) values represent population thresholds per the Virginia IBA instructions.

Species Name	Season Month/Day of Observation	Year of Observation	[1]Relative Abundance	[2]Counts		[3]Types of Birds Counted	[4]Reliability /Data Quality	[5]Source
				All Groups	Migrating Raptors Only			
				Density # /___ area or Max # / visit	Total Season Count			
American Black Duck	Summer	1995		**3**[a](5)		B	M	1, 2
Bald Eagle (breeding)	Spring	2006		**26**[b](30)		B	G	3
Bald Eagle (summer)	Summer	2006		**36**[c](100)		I	G	4
Bald Eagle (winter)	Winter	2005		**70**[d](100)		I	M	5
King Rail	Summer	2001		**300**[e](30)		B	M	2, 6
Least Bittern	Summer	2001		**100**[f](20)		B	M	2, 6
Barn Owl	Summer	1997		**3**[g](5)		B	M	1, 7, 8
American Woodcock	Summer		**C**[h](50)					
Red-hded Woodpecker	Winter	2003		**33w**[i](60)		I	Un	9
Rusty Blackbird	Winter	2005		**550**[j](200)		I	Un	10
Whip-poor-will	Summer		**U**[k](500)					
Northern Bobwhite	Winter			**23w**[l](100)		I	Un	9
Wood Thrush	Summer		**C**[m](1000)					
Prothonotary Warbler	Summer		**U**[n](430)					

Worm-eating Warbler	Summer		**U**[o](100)						
Prairie Warbler	Summer		**C**[p](500)						
Louisiana Waterthrush	Summer		**U**[q](200)						
Kentucky Warbler	Summer		**R**[r](200)						
Eastern Meadowlark	Winter	2003			**176w**[s](200)				9
Grasshopper Sparrow	Summer		**C**[t](200)						
Field Sparrow	Summer		**C**[u](200)						
Colonial Species									
Great Blue Heron	Spring	2003			**95**[v]		B	G	11

[a]Size of breeding population not known but appears to meet IBA threshold. Three pairs found nesting in offshore duck blinds and birds observed with broods within large marshes.
[b]Breeding population increasing annually and will likely reach IBA threshold in the near future.
[c]Small concentration area appears to be forming near the mouth of the Pamunkey River with at least 1 communal roost.
[d]Moderate winter concentration areas noted near Pamunkey Indian Reservation and landfill in King and Queen County. Further investigation needed.
[e]Along with Back Bay this area likely supports the largest population within the region. Population projection based on breeding density estimate and habitat availability.
[f]Along with Back Bay this area likely supports the largest population within the region. Population projection based on observations and habitat availability.
[g]Size of breeding population not completely known. Birds known to nest in offshore duck blinds and some farm structures within the area but survey of all available structures not completed. Population likely exceeds threshold.
[h]Extensive habitat for this species within the area. Area likely meets population threshold. No systematic estimate available.
[i]Species fairly common and likely exceeds population threshold. Walkerton CBC (which represents a small portion over the broader area) recorded 33 in 2003. No systematic population data available from the breeding season.
[j]Extensive habitat for this species within the area. Area likely supports thousands of individuals. No complete population estimate available.
[k]Area may reach population threshold. No overall population estimate.
[l]Considerable habitat available within area. Area likely meets population threshold. No systematic survey or population estimate available.
[m]Area not likely to meet population threshold. Species is regular breeder. No population estimate has been made.
[n]Considerable habitat in western portion of area. Aea may reach population threshold. No overall population estimate.
[o]Area may reach population threshold. No overall population estimate.
[p]Species common along marsh edges, shrublands, and regenerating pinelands and likely reaches population threshold. No overall population estimate.

[q]Species breeds along forested ravines. Species is not likely to reach population threshold. No overall population estimate.
[r]Species breeds in low forests but does not likely reach population threshold. No overall population estimate.
[s]Extensive habitat available within area. Species almost certainly meets population threshold. No population estimate is available.
[t]Species is common breeder and habitat is extensive. Population almost certainly meets threshold.
[u]Species is common breeder and habitat is extensive. Population almost certainly meets threshold.
[v]Several relatively small colony located within area.

III B. Source Details

Detail the sources of data noted in the "Species List and Population Data" (III A) Section. If additional space is needed, you may attach copies of this form to the nomination.

1. Watts, B. D. A survey of duck blinds for nesting birds within the Chesapeake Bay. Unpublished data.

2. Paxton, B. J. and B. D. Watts. 2003. Bird surveys of Lee and Hill Marshes on the Pamunkey River: Possible affects of sea-level rise on marsh bird communities. Center for Conservation Biology Technical Report Series. CCBTR-03-02. College of William and Mary, Williamsburg, VA 31 pp.

3. Watts, B. D. and M. A. Byrd. 2006. Virginia Bald Eagle nest and productivity survey: Year 2006 report. Center for Conservation Biology Technical Report Series, CCBTR-06-11. College of William and Mary, Williamsburg, VA 31 pp.

4. Watts, B. D. and M. U. Watts. A survey of the Pamunkey and Mattaponi River concentration area on 11 July, 2006. Unpublished Data.

5. Watts, B. D. Observations of wintering eagles on the upper York River. Unpublished Data.

6. Watts, B. D. population projection based on surveys and habitat availability.

7. Watts, B. D. 2003. An evaluation of nest box use by Barn Owls and the initiation of a new box program on coastal marshlands in Virginia. Center for Conservation Biology Technical Report Series, CCBTR-03-09. College of William and Mary, Williamsburg, VA. 16 pp.

8. Watts, B. D. and D. M. Whalen. 2005. An evaluation of nest box use by Common Barn Owls in Virginia. *The Raven* 75:71-77.

9. Kain, T. 2003. Virginia Christmas Bird Counts: 2002-2003 season. Raven 74:18-63.

10. Atwood, F. 2006. East section. Virginia Birds 2:8-9.

11. Watts, B. D. 2004. Status and distribution of colonial waterbirds in coastal Virginia: 2003 breeding season. CCBTR-04-06. Center for Conservation Biology, College of William and Mary, Williamsburg, VA 25 pp.

IV. IBA Criteria

Proposed State Level Criteria – Mark all that apply
See Instruction IV for **Explanations of Criteria**.

Code	State Definition	Mark all criteria that apply
D 1.	Endangered, threatened, or vulnerable species: The site sustains a breeding or non-breeding population of one or more bird species, sub-species, or isolated populations that is/are endangered, threatened or vulnerable to extirpation.	Yes
D 3.	The site contains a significant suite of species associated with a habitat type that is representative, rare, or threatened in Virginia.	Yes
D 4.	The site contains a significant concentration of one or more species during the breeding season, winter, or during migration.	Yes

V. Habitat Details

See Instruction **V** for **List of Habitats** at both levels below.

	Major vegetation community types	Predominant plant species	Cover %
	Pine Plantation	Loblolly pine	9032 ha
	Mixed Forest	Loblolly Pine	702 ha
		Various oaks	
		Red Maple	
1.	Deciduous Forest	Various oaks	16451 ha
		Hickories	
		Red maple	
		American beech	
2.	Row Crops	Corn, soy beans, cotton	15294 ha
	Pasture	Various grass species	

	Idle Grassland		
3.	Forested Wetlands	Red maple	5569 ha
4.	Oligohaline, Tidal Fresh Marshes	*Peltandra*	4084 ha
		Wild rice	
		Spartina cynosuroides	

VI. Land Use

See Instruction VI for description of **Land Uses**. Mark each land use at the site, circle its predominance, and (if known) provide an estimate of the percent cover at the site currently devoted to the land use. You may enter brief notes to clarify some land uses. Detailed explanations of land uses should be reported in Text Summary, section IX.

Check Here	Land Use	Predominance			Cover %	Notes
X	Agriculture 1. Row crops, small grains	**Major**	Minor	Unknown		
X	Agriculture 2. Grasslands (pasture, hay)	**Major**	Minor	Unknown		
X	Fisheries/aquaculture	Major	**Minor**	Unknown		
X	Forestry	**Major**	Minor	Unknown		
X	Hunting	**Major**	Minor	Unknown		
	Military	Major	**Minor**	Unknown		
X	Nature Conservation / research	Major	**Minor**	Unknown		
	Not utilized	Major	Minor	Unknown		
	Other	Major	Minor	Unknown		
X	Tourism / recreation	Major	**Minor**	Unknown		
	Unknown	Major	Minor	Unknown		
X	Urban / industrial / transport	Major	**Minor**	Unknown		
	Water management	Major	Minor	Unknown		

VII. Threats

See Instruction VII for description of **Threat Codes.** Indicate all threats and the relative level of the threat by entering (L) Low, (M) Medium, (H) high, (U) Unknown in front of all that apply. You may enter notes to clarify some threats. However, detailed explanations of threats should be reported in Text Summary, section IX.

Enter L,M,H,U	Threat	Notes
L	Abandonment/land management reduction	
L	Agricultural expansion/intensification	
L	Aquaculture/fisheries	Contamination of fisheries (prey base)
L	Burning of vegetation	
M	Dam/dyke/barrage construction/operations	
L	Disturbance to birds	
L	Draining wetlands	
L	Dredging/canal building (irrigation)	
L	Filling wetlands	
L	Forest grazing (by native or domestic herbivores)	
M	Groundwater extraction	
M	Industrialization/urbanization	Residential development
M	Infrastructure (roads, power lines, cell towers, etc.)	Residential development
L	Intensified forest management (please elaborate)	
L	Isolation/fragmentation	
M	Mineral/oil/peat extraction	Sand mining
M	Natural events	Erosion of tidal fresh marshes
M	Nonnative (exotic) animal/plant introduction	Expansion of exotics
L	Other	
L	Pesticide application (non-agricultural)	
M	Plantation forestry (Afforestation) on previously open land	
L	Recreation/tourism	

L	Unsustainable exploitation of birds	

Site Name: Pamunkey and Mattaponi Rivers

VIII. Protected Areas

Complete only if this site contains or abuts protected area(s)!

Enter name and descriptions of protected areas contained within or adjacent to this site.
See **Instruction VIII**

1. Name of protected area: Mattaponi River Megacomplex – The Nature Conservancy	
Designation:	**Area:** circle one: hectares, acres, sq. miles
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles **847.8**

2. Name of protected area: Cumberland Marsh Preserve – The Nature Conservancy	
Designation:	**Area:** circle one: hectares, acres, sq. miles
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles **486.9**

3. Name of protected area: Pamunkey Indian Reservation – The Pamunkey Tribe	
Designation:	**Area:** circle one: **hectares**, acres, sq. miles **449.5**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one**: hectares**, acres, sq. miles

2. Name of protected area: Mattaponi Indian Reservation – Mattaponi Tribe	
Designation:	**Area:** circle one**: hectares**, acres, sq. miles **30.6**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, I**s contained by IBA,** Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares,** acres, sq. miles

IX. Text Summary

Use the following space for additional descriptions of site details.

General Site Description: The tidal fresh and oligohaline reaches of the upper York River include the Pamunkey and Mattaponi rivers from their confluence at West Point to near Route 360 on the Pamunkey and above Walkerton on the Mattaponi. These tributaries contain extensive forested wetlands and one of the largest complexes of tidal fresh and oligohaline marshes in the mid-Atlantic region. These marshes support their characteristic breeding bird community of King Rail, Least Bitterns, and Red-winged Blackbirds. They also support thousands of Sora and Tree Swallows during fall migration. Forested wetlands support several species of neotropical migrants during the breeding season and are important stopover habitats during fall migration. These patches support large communal roosts of mixed blackbirds during the winter including the Rusty Blackbird. The surrounding uplands are rural and dominated by agriculture.

General Ornithological Information: Compared to other areas within the coastal plain of Virginia and other habitat types, the Pamunkey and Mattaponi rivers have received relatively little attention by the ornithological community. Wintering waterfowl have been surveyed since the 1950s. Breeding Bald Eagles have been surveyed since the 1960s. Colonial waterbirds have been surveyed since the 1980s. Ospreys, bank-nesting birds, and birds nesting in offshore duck blinds were surveyed in 1995. A survey of the breeding and winter bird communities within Lee and Hill Marshes was conducted in 2003. Surveys were initiated within selected marshes on the Mattaponi in 2006. Bald Eagle shoreline surveys were conducted in the summer of 2006. A Christmas Bird Count is located in Walkerton. The extensive marshes are known to be important staging areas for Sora and various swallow species during fall migration but no focused work has been conducted.

Research / conservation projects: Although investigations of selected taxa have been conducted, considerable gaps in understanding currently exist and many research projects are needed. Although several private landowners have conducted significant conservation work over the years, land protection and targeted conservation projects are just beginning.

Habitat / Land Use: The delineated area includes most of the tidal fresh reach of the upper York River, associated emergent and forested wetlands, and the surrounding rural landscape that includes extensive farmland and mixed forest. Landuse is primarily farming with an increasing component of residential and urban development.

Other Flora / Fauna:

Protected Areas: Although many large tracts of land are being managed under private ownership, there are very few lands within protected status. Holders include The Nature Conservancy and the Pamunkey and Mattaponi tribes.

Threats: The primary threats that are of concern include the loss of marshes to sea-level rise and the conversion of open land to residential. Over the past decade, the oligohaline marshes have begun to exhibit a transition in vegetation related to sea-level rise. Loss of marsh area and/or the transition to plants more adapted to inundation will cause a shift in the community of birds that depend on these marshes. These marsh types are rare within the region. Until recently, the upland landscape within the area has remained rural with relatively little development pressure. Since 2000 there has been an increase in residential development,

particularly along primary shorelines. Many of the species that depend on habitats within the area are sensitive to development.

Western Shore Marshes Important Bird Area
Fact Sheet

Location: York, Gloucester, and Mathews Counties, Poquoson and Hampton Cities
Total Size: 5,097 ha (12,590 acres)
Elevation: 0-8 m (0-26.2 feet)

Plum Tree Island tidal marsh

Site Description: The arc of land from Grandview Beach north to New Point Comfort supports the largest concentration of salt marsh habitat within the lower Chesapeake Bay and the largest in Virginia outside of the Eastern Shore. The system includes high-marsh habitat, low-marsh habitat, an extensive network of sandy berms, and scattered pine hummocks. Marshes are bordered along the mainland by some of the most extensive maritime forests in Virginia. These marshes provide nursery grounds for many ecologically and commercially important fish species. Historically, surrounding lands were rural but are under increasing pressure for residential development. Although there is considerable government and NGO ownership within this area, much of the habitat remains in private ownership.

Protection: An increasing portion of the area is owned and protected to meet conservation, management, and educational objectives. Significant conservation areas include Plum Tree Island and Messick Marsh owned by the U.S. Fish and Wildlife Service, Langley Marshes owned by the U.S. Department of Defense, Goodwin Island owned by the College of William and Mary, and Grandview Nature Preserve owned by the City of Hampton.

Birds: The avifauna within this area has received relatively little study, particularly during migration and in winter. Extensive low marsh areas support significant populations of Clapper Rail, Seaside Sparrows, and Marsh Wrens. Tide pools support a large diversity of breeding species, as well as, migrant shorebirds. Large high marsh areas support breeding populations of Sedge Wrens, Northern Harriers, Prairie Warblers, and Eastern Meadowlarks. Sandy berms and barriers support Least Terns and American Oystercatchers. Pine hummocks and adjacent maritime forests support significant populations of Brown-headed Nuthatches and Chuck-will's-widows. Isolated marsh islands support breeding American Black Ducks, American Oystercatchers, Snowy Egrets, Herring Gulls, and Boat-tailed Grackles.

Conservation and Threats: Primary threats relevant to bird populations within the area include 1) loss of habitat to the invasion by common reed, 2) loss of habitat to sea-level rise, 3) increases in mammal populations and associated predation, and 4) human

disturbance to colonial waterbirds. The aggressive invasive plant common reed is spreading rapidly throughout this system. Although high marshes within this system have not been degraded to the same extent as many areas within the upper Chesapeake Bay many marshes within the system are highly threatened. Habitat continues to be at risk in the long term to rising sea levels. Isolated marsh islands are particularly vulnerable to this ongoing process. The increase in mammalian predators (raccoon and both fox species) over the past 30 years has likely had a detrimental effect on reproductive rates of marsh-bird populations. Human disturbance within the sensitive breeding area at Grandview Beach has become a chronic problem. Most of the remaining areas are more remote and less threatened by human visitation.

Important Bird Areas of Virginia

IBA Nomination Form

The Important Bird Area (IBA) program is an international effort to identify, conserve, and monitor a network of sites that provide essential habitat for bird populations. BirdLife International began the IBA program in Europe in 1985. Since that time, BirdLife partners in more than 100 countries have joined together to build the global IBA network. Audubon, the BirdLife Partner in the U.S. has been working since 1995 to identify and conserve hundreds of IBAs all across the United States.

For more information, visit: http://www.audubon.org/bird/iba/index.html
Or contact Aimee Weldon, the Virginia IBA Coordinator
P.O. Box 1089, Ashland, VA 23005 aweldon@audubon.org 804-370-3528
Additional copies of the Nomination Form may be downloaded from www.virginia-iba.org

Thank you for your interest in the Important Bird Areas Program. Please tell us about the areas that you think may meet the criteria by completing as much of this form as possible. Detailed instructions for fields requiring clarification may be found in the **INSTRUCTIONS FOR COMPLETION OF IBA NOMINATION FORM**. It is important that the data and information about the sites are recorded in a standard format, so that they may be accurately evaluated.

I. Nominator Information	
YOUR NAME: **Bryan D. Watts**	PHONE: **(757) 221-2247**
AFFILIATION(if any) **Center for Conservation Biology College of William and Mary**	EMAIL: **bdwatt@wm.edu**
ADDRESS: **PO Box 8795**	
ZIP CITY, STATE, **Williamsburg, VA 23187-8795**	DATE: **12/4/06**

II. Site Details	
SITE NAME: **Western Shore Marshes**	
CITY,TOWN,COUNTY: **York, Gloucester, and Mathews Counties, Poquoson and Hampton Cities.**	AREA: **5097** (circle one) acres, sq. miles., **hectares**
ELEVATION: Minimum **0** (circle one) feet, **meters**	ELEVATION: Maximum **8** feet, **meters**
COORDINATES (at site center) Latitude **37° 16' 10"**	Longitude **-76° 22' 20"**

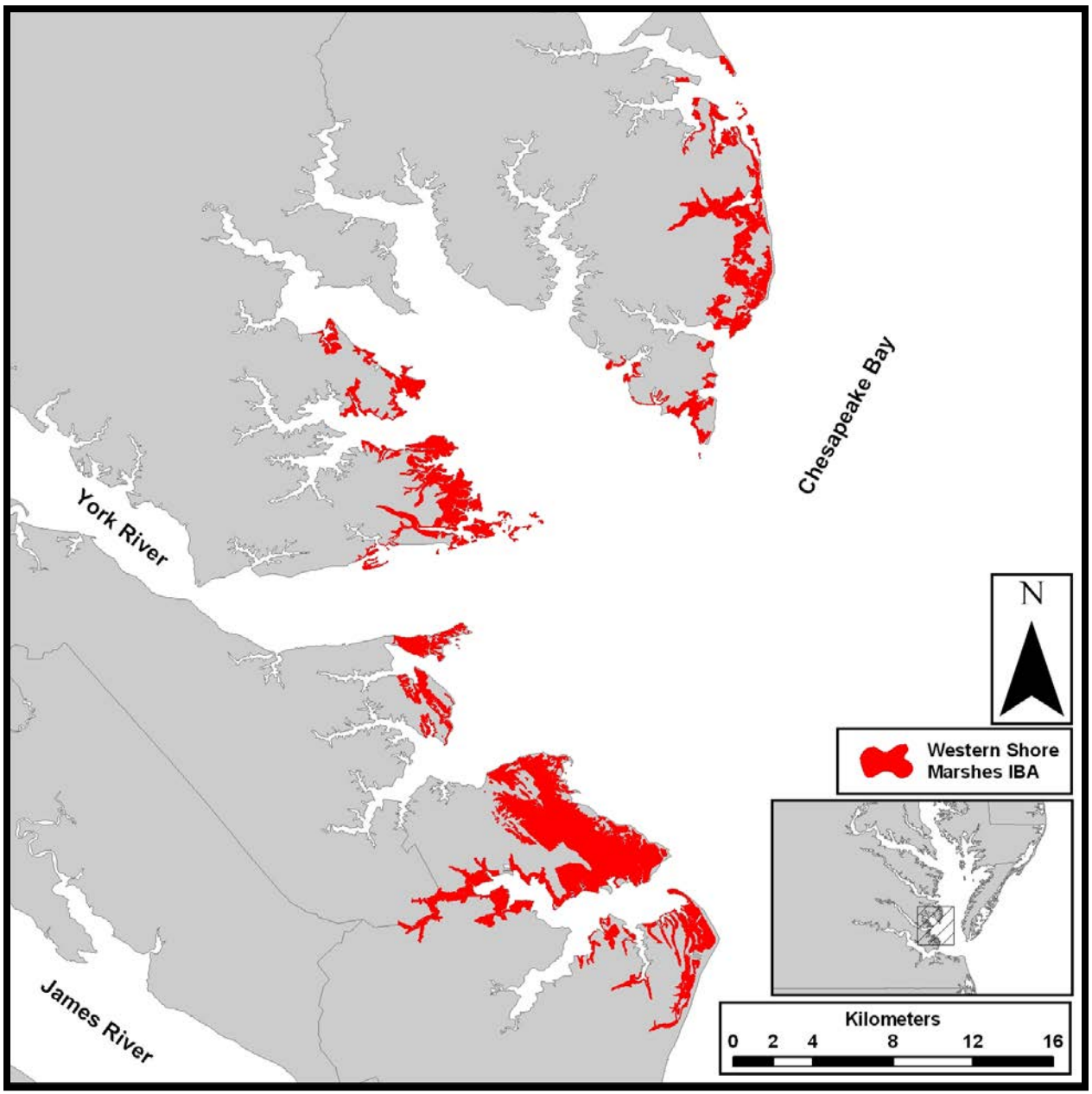
Ownership: (Circle One) **federal, state, private**, international waters, communal, religious group, mixed, other

Ownership Details: (List owners. If "other" ownership, please describe. If the property is privately owned, please provide contact information and specify if owner is aware of nomination)

United States Fish and Wildlife Service
United States Department of Defense

The College of William and Mary
City of Hampton
The Nature Conservancy
Many private holdings

Road Directions to site (or location /distance to nearest town) Please include a map if convenient.



Site Name: James River Tidal Fresh

III A. Species List and Population Data

List the species of significance. Provide all other information at your disposal (note: Types of Birds Counted is required). Each record should represent a count at the site in a given year. **Please use the following codes when completing this chart.**

1. **Relative Abundance:** Abundant = **A,** Common = **C**, Frequent = **F**, Uncommon = **U**, Rare = **R**, Not available = **NA**
2. **Count:** For all species, enter either **Density** (# per unit of area), please specify ha, acres, sq. mi. or **Max #.** **Max #** is the highest # observed on one visit in a given season. Total season counts may be entered for migrating raptors only.
3. **Types of Birds Counted:** Individuals = **I**, Breeding Pairs = **B**, Adults only = **A** , Males only = **M,** Females only**= F,** Nests = **N**
4. **Reliability/Data quality:** Good = **G**, Medium = **M**, Poor = **P**, Unknown = **Un**
5. **Source:** Enter the number of the source in this box, and list corresponding details of the sources in Source Details (IIIB) section. Sources may include published reports, surveys, personal observations or field notes.

( ) values represent population thresholds per the Virginia IBA instructions.

Species Name	Season Month/Day of Observation	Year of Observation	[1]Relative Abundance	[2]Counts		[3]Types of Birds Counted	[4]Reliability /Data Quality	[5]Source
				All Groups	Migrating Raptors Only			
				Density # /___ area or Max # / visit	Total Season Count			
Piping Plover	Summer	1991		**3**[a](all)		B	G	1, 2
Saltmarsh S-t Sparrow	Summer	1992		**1**[b](5)		B	G	3
Henslow's Sparrow	Summer	1995		**1**[c](all)		B	Un	4
Nelson's S-t Sparrow	Winter	1992		**62**[d](100)		B	Un	5
American Black Duck	Summer	1992		**10**[e](5)		B	Un	5, 6
Bald Eagle (breeding)	Spring	2006		**3**[f](30)		B	G	7
Amer Oystercatcher	Summer	2003		**21**[g](15)		B	G	8
Least Tern	Summer	2003		**130**[h](50)		B	G	9
Brant	Winter	2006		**105**[i](240)		I	Un	10
Redhead	Winter	2005		**60**[j](500)		I	Un	11
Northern Harrier	Summer	1992		**7**[k](?)		B	G	12
Northern Harrier	Winter	2003		**8**[l](?)		I	Un	13
Sedge Wren	Summer	1992		**10**[m](5)		B	M	5
Red Knot	Spring	2003		**45**[n](240)		I	Un	14

Sh-billed Dowitcher	Spring	1992			**128**[o](480)		I	Un	5, 15
Seaside Sparrow	Summer				**14,000**[p](500)		B	M	16
Brown-hd Nuthatch	Winter	2003			**42**[q](40)		I	Un	13
Chuck-will's-widow	Summer		**C**[r]		(50)				
Northern Bobwhite	Summer		**U**[s]		(100)				
Prairie Warbler	Summer		**C**[t]		(500)				
Eastern Meadowlark	Summer		**C**[u]		(200)				
Field Sparrow	Summer		**C**[v]		(200)				
Colonial Species									
Great Blue Heron	Summer	2003			**206**[w]		B	G	9
Great Egret	Summer	2003			**4**[x]		B	G	9
Snowy Egret	Summer	2003			**45**[y]		B	B	9
Herring Gull	Summer	2003			**14**[z]		B	B	9
Common Tern	Summer	2003			**9**[aa]		B	B	9

[a]Species nested historically on Grandview Beach but has not in recent decade though birds have been observed in recent years on both Plumtree Island and Grandview Beach.
[b]Species nested historically along western shore marshes. Most recent record in 1992 when a nest was found on Four Points Marsh.
[c]Species nested historically along western shore marshes. Single bird observed on Brush Point Marsh in 1995.
[d]Species winters in relatively low densities in large patches of low-marsh habitat within area. A high count of 62 from only 4 marshes in 1992 suggests that area almost certainly meets population threshold. CBC does not adequately sample this habitat. No winter population estimate available.
[e]Species nests in extensive marshes and on marsh islands. Has declined in recent decades.
[f]Rare breeder in this system on pine hummocks. Population is not significant relative to state and Bay population.
[g]Habitat is fairly limited with the area. Species is nesting on sandy marsh edges and marsh islands.
[h]Historically, species nested in several locations within area but now restricted to Grandview Beach where there are chronic problems with human disturbance.
[i]Small numbers winter but area does not meet threshold during most years.
[j]During most years, small numbers observed on Mathews CBC. Not clear if larger area meets threshold. No population estimate.
[k]Area supports approximately 30% of Virginia known population. Pairs nest in extensive marshes.
[l]Good numbers winter in large marsh patches and adjacent fields. No winter population estimate available for entire area.
[m]Species seems to require large patches of high marsh with scattered shrubs. Habitat is limited within area.
[n]Species occurs in low numbers during migration on beaches along marsh or on marsh edges with mussels. No systematic estimate of use.

[o]Species migrates through area using tidepools in extensive marshes. Area likely to exceed IBA threshold during most years. No systematic work completed except for sub-samples from 1992.
[p]Extensive habitat available for this species. Species is most abundant nester within area.
[q]Extensive habitat available for this species. Area clearly supports larger population than threshold. No population estimate for entire area.
[r]Area supports one of the highest breeding densities throughout the species range. Area clearly supports larger population than threshold. No population estimate for entire area.
[s]Species occurs in high marsh habitats. Unclear if population reaches IBA threshold in area. No population estimate for entire area.
[t]Species occurs within high marsh habitats. Unclear if population reaches IBA threshold in area. No population estimate for entire area.
[u]Species occurs within high marsh habitats. Based on breeding density, species likely to reach threshold. No population estimate for entire area.
[v]Species occurs within high marsh habitats. Based on breeding density, species likely to reach threshold. No population estimate for entire area.
[w]Scattered small colonies within the area in pine hummocks. Area supports 2% of state population.
[x]Species mixes in with Great Blue Heron colonies in low numbers. Population not significant.
[y]Species found nesting only recently on isolated marsh island. One of only 2 known nesting locations on western shore.
[z]Species has recently colonized small marsh islands. Population likely to expand.
[aa]Historically nested in several locations within area but now restricted to Grandview Beach.

III B. Source Details

Detail the sources of data noted in the "Species List and Population Data" (III A) Section. If additional space is needed, you may attach copies of this form to the nomination.

1. Byrd, M. A., K. Terwilliger, D. Bradshaw, and B. Cross. 1991. Shorebird investigations. Virginia Nongame and Endangered Wildlife Investigations: Annual Report. Virginia Department of Game & Inland Fisheries, Richmond, VA.

2. Watts, B. D. 2003. Observations of Piping Plovers during the spring of 2003 on Plumtree Island. Unpublished Data.

3. Watts, B. D. 2005. A recent breeding record of the Saltmarsh Sharp-tailed Sparrow in Gloucester County Virginia. *The Raven* 75:128-131.

4. Watts, B. D. 1995. Observations of a Henslow's Sparrow in Brushy Point Marsh. Unpublished Data.

5. Watts, B. D. 1992. The influence of marsh size on marsh value for bird communities of the lower Chesapeake Bay. Center for Conservation Biology Technical Report, CCBTR-92-01. College of William and Mary, Williamsburg, VA.115pp.

6. Watts, B. D. 1992. Observations of nesting birds and birds with broods in addition to discussions with local watermen about pairs nesting on islands around the Guinea Marshes. Unpublished Data.

7. Watts, B. D. and M. A. Byrd. 2006. Virginia Bald Eagle nest and productivity survey: Year 2006 report. Center for Conservation Biology Technical Report Series, CCBTR-06-11. College of William and Mary, Williamsburg, VA 31 pp.

8. Wilke, A. L., B. D. Watts, B. R. Truitt, and R. Boettcher. 2005. Breeding season status of the American Oystercatcher in Virginia, USA. *Waterbirds* 28:308-315.

9. Watts, B. D. 2004. Status and distribution of colonial waterbirds in coastal Virginia: 2003 breeding season. CCBTR-04-06. Center for Conservation Biology, College of William and Mary, Williamsburg, VA 25 pp.

10. Atwood, F. 2006. East section. Virginia Birds 2:8-11.

11. Kain, T. 2005. Virginia Christmas Bird Counts: 2004-2005 season. Raven 76:21-65.

12. Watts, B. D. and S. J. Rottenborn. 2002. Status of breeding Northern Harriers in coastal Virginia. *The Raven* 72:153-157.

13. Kain, T. 2003. Virginia Christmas Bird Counts: 2002-2003 season. *The Raven* 74:18-63.

14. Watts, B. D. and M. U. Watts. 2003. Observations of Red Knots on Plumtree Island during spring migration. Unpublished Data.

15. Beheeler, A. A. and B. D. Watts. 2005. Migrant shorebird utilization of natural tidepools within the tidal marsh landscape. Submitted Manuscript.

16. Watts, B. D. 2006. Population projection based on breeding density and available habitat**.**

Site Name: James River Tidal Fresh

IV. IBA Criteria

Proposed State Level Criteria – Mark all that apply
See Instruction IV for **Explanations of Criteria**.

Code	State Definition	Mark all criteria that apply
D 1.	Endangered, threatened, or vulnerable species: The site sustains a breeding or non-breeding population of one or more bird species, sub-species, or isolated populations that is/are endangered, threatened or vulnerable to extirpation.	Yes
D 3.	The site contains a significant suite of species associated with a habitat type that is representative, rare, or threatened in Virginia.	Yes
D 4.	The site contains a significant concentration of one or more species during the breeding season, winter, or during migration.	Yes

V. Habitat Details

See Instruction **V** for **List of Habitats** at both levels below.

	Major vegetation community types	Predominant plant species	Cover %
1.	Pine Forest	Loblolly pine	91 ha
2.	Salt Marsh	Smooth cordgrass, black needlerush	3977 ha
		Saltmeadow hay	
		Saltgrass	
		Salt bush	
3.	Sandy beach/berms		156 ha
4.			

Site Name: James River Tidal Fresh

VI. Land Use

See Instruction VI for description of **Land Uses**. Mark each land use at the site, circle its predominance, and (if known) provide an estimate of the percent cover at the site currently devoted to the land use. You may enter brief notes to clarify some land uses. Detailed explanations of land uses should be reported in Text Summary, section IX.

Check Here	Land Use	Predominance			Cover %	Notes
	Agriculture 1. Row crops, small grains	Major	Minor	Unknown		
	Agriculture 2. Grasslands (pasture, hay)	Major	Minor	Unknown		
X	Fisheries/aquaculture	**Major**	Minor	Unknown		
	Forestry	Major	Minor	Unknown		
X	Hunting	**Major**	Minor	Unknown		
	Military	Major	**Minor**	Unknown		
X	Nature Conservation / research	**Major**	Minor	Unknown		
	Not utilized	Major	Minor	Unknown		
	Other	Major	Minor	Unknown		
X	Tourism / recreation	Major	**Minor**	Unknown		
	Unknown	Major	Minor	Unknown		
	Urban / industrial / transport	Major	Minor	Unknown		
	Water management	Major	Minor	Unknown		

VII. Threats

See Instruction VII for description of **Threat Codes.** Indicate all threats and the relative level of the threat by entering (L) Low, (M) Medium, (H) high, (U) Unknown in front of all that apply. You may enter notes to clarify some threats. However, detailed explanations of threats should be reported in Text Summary, section IX.

Enter L,M,H,U	Threat	Notes
L	Abandonment/land management reduction	
L	Agricultural expansion/intensification	
H	Aquaculture/fisheries	
L	Burning of vegetation	
L	Dam/dyke/barrage construction/operations	
M	Disturbance to birds	Boating/recreational activity
L	Draining wetlands	
L	Dredging/canal building (irrigation)	
L	Filling wetlands	
L	Forest grazing (by native or domestic herbivores)	
L	Groundwater extraction	
L	Industrialization/urbanization	
L	Infrastructure (roads, power lines, cell towers, etc.)	
L	Intensified forest management (please elaborate)	
L	Isolation/fragmentation	
L	Mineral/oil/peat extraction	
H	Natural events	Erosion of marshes
H	Nonnative (exotic) animal/plant introduction	Expansion of phragmites

L	Other	
L	Pesticide application (non-agricultural)	
L	Plantation forestry (Afforestation) on previously open land	
L	Recreation/tourism	
L	Unsustainable exploitation of birds	

VIII. Protected Areas

Complete only if this site contains or abuts protected area(s)!

Enter name and descriptions of protected areas contained within or adjacent to this site.
See **Instruction VIII**

1. Name of protected area: Plumtree Island National Wildlife Refuge – U.S. Fish and Wildlife Service	
Designation:	**Area:** circle one: hectares, acres, sq. miles **886.5**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles

2. Name of protected area: Langley Airforce Base – U.S. Department of Defens	
Designation:	**Area:** circle one: **hectares,** acres, sq. miles
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, Is contained by IBA, **Overlaps with IBA**, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles **193.3**

3. Name of protected area: Bethel Beach Natural Area Preserve – Virginia Department of Conservation and Recreation	
Designation:	**Area:** circle one: **hectares,** acres, sq. miles
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, Is contained by IBA, **Overlaps with IBA**, Unknown	**Overlap:** circle one**: hectares**, acres, sq. miles **23.8**

4. Name of protected area: Newpoint Comfort Natural Area Preserve – Virginia Department of Conservation and Recreation	
Designation:	**Area:** circle one: **hectares**, acres, sq. miles **16.3**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, Is contained by IBA, **Overlaps with IBA,** Unknown	**Overlap:** circle one**: hectares**, acres, sq. miles

5. Name of protected area: Goodwin Island - College of William and Mary	
Designation:	**Area:** circle one**: hectares**, acres, sq. miles

Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, Is contained by IBA, **Overlaps with IBA**, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles **148.0**

6. Name of protected area: Grandview Nature Preserve – City of Hampton	
Designation:	**Area:** circle one: **hectares**, acres, sq. miles **163.5**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles

7. Name of protected area: **Gu**inea Marshes Preserve – The Nature Conservancy	
Designation:	**Area:** circle one: **hectares,** acres, sq. miles **67.3**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles

IX. Text Summary

Use the following space for additional descriptions of site details.

General Site Description: The western shoreline of the Chesapeake Bay from Grandview Beach to Milford Haven contains the largest concentration of salt marshes in Virginia outside of the Eastern Shore. These marshes support significant populations of marsh-nesting species such as the Clapper Rail, Willet, Seaside Sparrow, Sedge Wren, and Northern Harrier, as well as, migrant shorebirds and wintering waterfowl. Sandy berms and barriers support nesting American Oystercatchers and Least Terns. Pine hummocks and edges support large populations of Chuck-will's-widows and Brown-headed Nuthatches. These marshes also serve as nursery grounds for fish and shellfish species that are both ecologically and commercially important.

General Ornithological Information: The western shore marshes and associated water bodies have been of interest to the ornithological community primarily since the 1960s. Bald Eagles have been surveyed in the area since the 1960s. Work with the Osprey population began in the early 1970s and has included long-term population and productivity monitoring and several ecological studies. Colonial waterbirds have been surveyed periodically since the mid-1970s. A large study investigating area-sensitivity in marsh birds was conducted in 1992 and 1993. An investigation of the use of natural tidepools by migrant shorebirds and other marsh species was conducted in 1995. The American Oystercatcher population was surveyed in 2003 as part of the statewide population assessment. Many aspects of the bird community within this area have yet to be investigated including use by migrants and wintering species.

Research / conservation projects: Several research projects have focused on this area since the 1970s. Several important marsh patches within this area have been acquired by conservation partners since 1990.

Habitat / Land Use: The primary habitat within the IBA is tidal salt marsh dominated by smooth cordgrass, black needlerush, salt meadow hay, saltgrass, and saltbush. Most of the habitat is pristine however some human impacts have occurred including damming of tideguts to create ponding for waterfowl hunting, conversion of high marsh to pasture, and frequent burning.

Other Flora / Fauna:

Protected Areas: An increasing portion of the area is owned and protected to meet conservation, management, and educational objectives. Holders include the U.S. Fish and Wildlife Service, U.S. Department of Defense, Virginia Department of Conservation and Recreation, the College of William and Mary, the City of Hampton, and The Nature Conservancy.

Threats: Primary threats relevant to bird population include 1) loss of habitat to the invasion by common reed, 2) loss of habitat to sea-level rise, 3) increases in mammal populations and associated predation, and 4) human disturbance to colonial waterbirds. The aggressive invasive plant common reed is spreading rapidly throughout this system. Although high marshes within this system have not been degraded to the same extent as many areas within the upper Chesapeake Bay many marshes within the system are highly threatened. Habitat continues to be at risk in the long term to rising sea levels. Isolated marsh islands are particularly vulnerable. The increase in mammal predators (raccoon and both fox species) over the past 30 years has likely had a detrimental effect on reproductive rates of marsh-bird populations. Human disturbance within the sensitive breeding area at Grandview Beach has become a chronic problem. Most of the remaining areas are more remote and less threatened by human visitation.

Rappahannock River Tidal Fresh Important Bird Area
Fact Sheet

Location: Essex, Richmond, Caroline, King George, Westmoreland Counties **Total Size :** 50,931 ha (125,800 acres)
Elevation: 0-66 m (0-217 feet)

Site Description: Compared to all other major tributaries of the Chesapeake Bay, the reach of the Rappahannock River between Tappahannock and Port Royal remains the most pristine. The waterway supports extensive forested wetlands and pristine shorelines embedded within a predominantly rural landscape. Uplands have a wide range of topographic features that result in a high diversity of habitats within a relatively small area. These areas are used for agriculture, forestry, and a growing ornamental nursery industry. Several large farms and historic plantations remain intact. In recent years, the U.S. Fish and Wildlife Service has made the area a focus for acquisition. Surrounding uplands are composed of rural farmlands that support some of the largest grassland bird populations in the Coastal Plain.

Protection: A growing and important portion of the area is owned and managed for conservation purposes. In recent years the area has become an acquisition target for both the U.S. Fish and Wildlife Service and The Nature Conservancy. The relatively new Rappahannock River Valley National Wildlife Refuge has been very successful in protecting strategically important tracts within the area. The Virginia Department of Game and Inland Fisheries manages Lands End for wintering waterfowl. In addition, many private landowners are progressive in managing their lands for conservation benefit.

Coastal Swamp Sparrow nest

Birds: The tidal fresh reach of the Rappahannock River supports the only known breeding population of Coastal Plain Swamp Sparrows in Virginia. The status and geographic extent of this population continues to be a topic of interest to the conservation community. The area supports the densest breeding population of Bald Eagles in Virginia and one of the largest summer and winter concentration areas in eastern North America. The waterway is a significant area for waterfowl during the winter months. Forested wetlands support breeding neotropical migrants such as the Prothonotary Warbler and Yellow-throated Vireo and winter roosts of blackbirds including the Rusty Blackbird. Surrounding fallow open lands support one of the largest grassland bird communities within coastal Virginia.

Conservation and Threats: Four primary threats are currently of concern including 1) conversion of open land to residential, 2) expansion of recreational boating access to

sensitive portions of the river, 3) contaminants within the fishery used by piscivorous birds, and 4) continued expansion of phragmites into sensitive marsh habitats. The urban centers of Fredericksburg and Tappahannock are expanding and expected to place pressure on the rural lands within this area in the future. Waterfront property is particularly vulnerable to future development. Since many of the species that depend on this area are sensitive to development, further development remains a concern. The reach of the river between Tappahannock and Port Royal supports one of the largest winter and summer concentrations of migrant Bald Eagles in eastern North America. These birds have been shown to be very sensitive to boating activity. Increases in boating activity and the number of boat access points within this stretch will negatively impact migrant eagles. Because of the position of these birds within the food web, they will always be vulnerable to new contaminants entering the system. Dispersal of the invasive plant phragmites from the large source population on Hoskins Creek threatens the integrity of pristine marshes throughout the system.

Important Bird Areas of Virginia

IBA Nomination Form

The Important Bird Area (IBA) program is an international effort to identify, conserve, and monitor a network of sites that provide essential habitat for bird populations. BirdLife International began the IBA program in Europe in 1985. Since that time, BirdLife partners in more than 100 countries have joined together to build the global IBA network. Audubon, the BirdLife Partner in the U.S. has been working since 1995 to identify and conserve hundreds of IBAs all across the United States.

For more information, visit: http://www.audubon.org/bird/iba/index.html
Or contact Aimee Weldon, the Virginia IBA Coordinator
P.O. Box 1089, Ashland, VA 23005 aweldon@audubon.org 804-370-3528
Additional copies of the Nomination Form may be downloaded from www.virginia-iba.org

Thank you for your interest in the Important Bird Areas Program. Please tell us about the areas that you think may meet the criteria by completing as much of this form as possible. Detailed instructions for fields requiring clarification may be found in the **INSTRUCTIONS FOR COMPLETION OF IBA NOMINATION FORM**. It is important that the data and information about the sites are recorded in a standard format, so that they may be accurately evaluated.

I. Nominator Information	
YOUR NAME: **Bryan D. Watts**	PHONE: **(757) 221-2247**
AFFILIATION(if any) **Center for Conservation Biology College of William and Mary**	EMAIL: **bdwatt@wm.edu**
ADDRESS: **PO Box 8795**	
ZIP CITY, STATE, **Williamsburg, VA 23187-8795**	DATE: **11/27/06**

II. Site Details	
SITE NAME: **Rappahannock River Tidal Fresh**	
CITY,TOWN,COUNTY: **Essex, Richmond, Caroline, King George, Westmoreland Counties**	AREA: **50,931** (circle one) acres, sq. miles., **hectares**
ELEVATION: Minimum **0** (circle one) feet, **meters**	ELEVATION: Maximum **66.2** feet, **meters**
COORDINATES (at site center) Latitude **38° 04' 07"**	Longitude: **-79° 59' 55"**

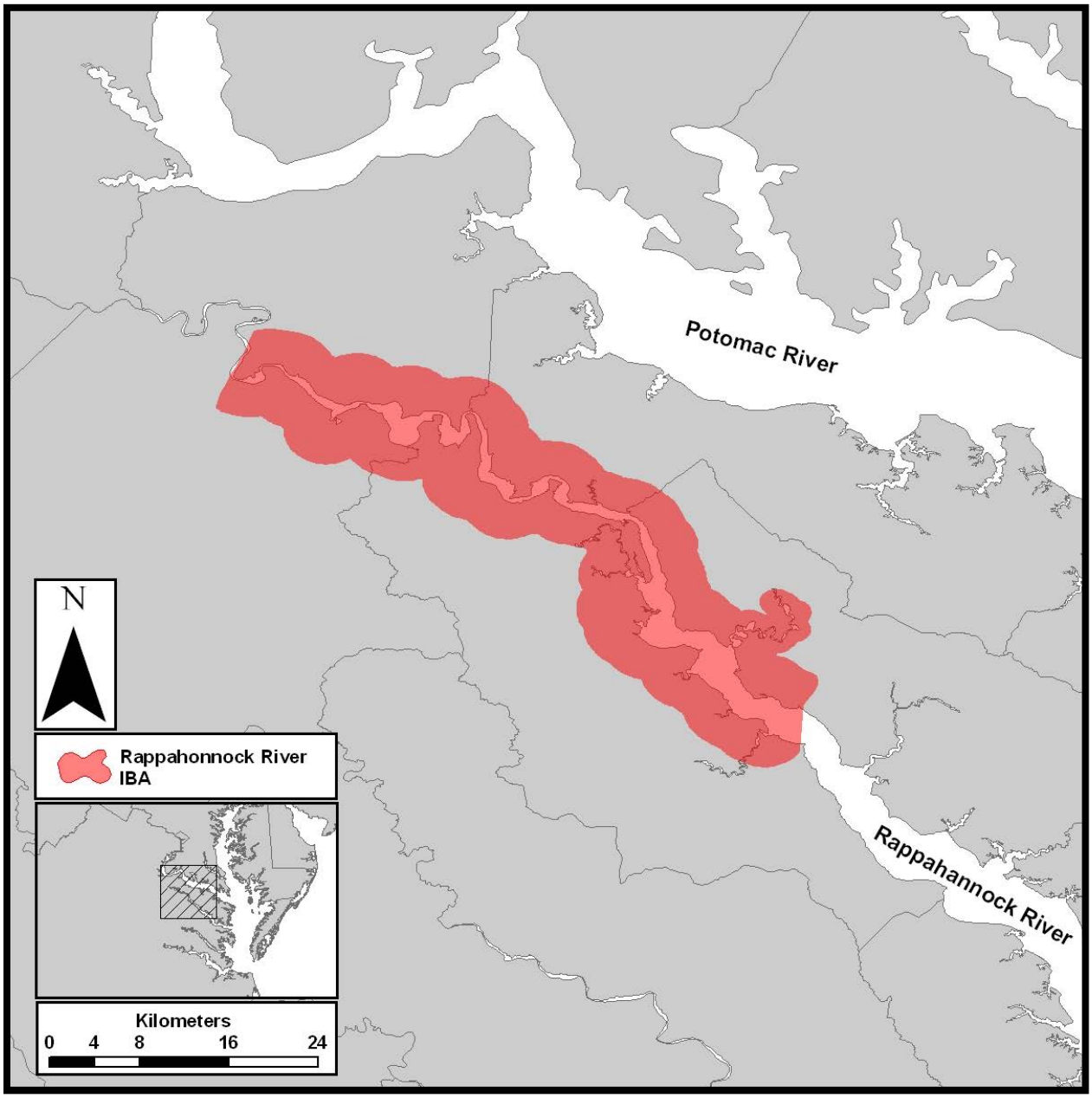
Ownership: (Circle One) **federal,** state, **private**, international waters, communal, religious group, mixed, other

Ownership Details: (List owners. If "other" ownership, please describe. If the property is privately owned, please provide contact information and specify if owner is aware of nomination)

United States Fish and Wildlife Service
United States Department of Defense

Virginia Department of Game and Inland Fisheries
The Nature Conservancy
Many private holdings

Road Directions to site (or location /distance to nearest town) Please include a map if convenient.



Site Name: Rappahannock River Tidal Fresh

III A. Species List and Population Data

List the species of significance. Provide all other information at your disposal (note: Types of Birds Counted is required). Each record should represent a count at the site in a given year. **Please use the following codes when completing this chart.**

1. **Relative Abundance:** Abundant = **A,** Common = **C**, Frequent = **F**, Uncommon = **U**, Rare = **R**, Not available = **NA**
2. **Count:** For all species, enter either **Density** (# per unit of area), please specify ha, acres, sq. mi. or **Max #.** **Max #** is the highest # observed on one visit in a given season. Total season counts may be entered for migrating raptors only.
3. **Types of Birds Counted:** Individuals = **I**, Breeding Pairs = **B**, Adults only = **A** , Males only = **M,** Females only**= F,** Nests = **N**
4. **Reliability/Data quality:** Good = **G**, Medium = **M**, Poor = **P**, Unknown = **Un**
5. **Source:** Enter the number of the source in this box, and list corresponding details of the sources in Source Details (IIIB) section. Sources may include published reports, surveys, personal observations or field notes.

( ) values represent population thresholds per the Virginia IBA instructions.

Species Name	Season Month/Day of Observation	Year of Observation	[1]Relative Abundance	[2]Counts		[3]Types of Birds Counted	[4]Reliability /Data Quality	[5]Source
				All Groups	Migrating Raptors Only			
				Density # /___ area or Max # / visit	Total Season Count			
Coastal Swamp Sp	Summer	2005		**47**[a](all)		B	G	1
Swainson's Warbler	Summer	2003		1[b](20)		B	Un	2
American Black Duck	Summer	1995		**5**[c](5)		B	M	3
Bald Eagle (breeding)	Spring	2006		**63**[d](30)		B	G	4
Bald Eagle (summer)	Summer	2006		**232**[e](100)		I	G	5, 6
Bald Eagle (winter)	Winter	2005		**383**[f](100)		I	G	6, 7, 8
King Rail	Summer	2005		2[g](30)		B	Un	9
Least Bittern	Summer	2005		3[h](20)		B	Un	9
Barn Owl	Summer Yr-round	1997 2002-2005		**6**[i](5) 8		B I	M M	3, 10 9
American Woodcock	Summer	2003-2005		**8**[j](50)		I	Un	9
Seaside Sparrow	Summer	2002		**13**[k](500)		B	G	9
Red-hded Woodpecker	Winter	2003-2006		**13**[l](60)		I	Un	9
Rusty Blackbird	Winter	2005		**1600**[m](200)		I	Un	9

Whip-poor-will	Summer		**U**[n](500)						
Northern Bobwhite	Summer		**U**[o](100)						
Wood Thrush	Summer		**C**[p](1000)						
Prothonotary Warbler	Summer		**U**[q](430)						
Worm-eating Warbler	Summer		**U**[r](100)						
Prairie Warbler	Summer		**C**[s](500)						
Louisiana Waterthrush	Summer		**U**[t](200)						
Kentucky Warbler	Summer		**R**[u](200)						
Eastern Meadowlark	Summer		**C**[v](200)						
Grasshopper Sparrow	Summer		**C**[w](200)						
Field Sparrow	Summer		**C**[x](200)						
Colonial Species									
Cliff Swallow	Summer	1995			**2**[y]		B	G	12
Great Blue Heron	Spring	2003			**261**[z]		B	G	13

[a]Only known Virginia breeding population. Singing males detected on Otterburn Marsh, Mulberry Point Marsh, and Island Farm Marsh (a tract of the Rappahannock River Valley NWR). May be more widespread.
[b]Single individual detected during breeding bird survey on Hutchinson Tract of the Rappahannock River Valley NWR. May be part of a larger, undocumented breeding population.
[c]Breeding documented in offshore duck blinds. Species likely breeds in scattered marsh locations based on observations of adults and young during breeding season. Observed in upper Cat Point Creek, Garland Creek, Island Farm Marsh (tract of RRVNWR)
[d]Area accounts for nearly 10% of state population. Breeding population increasing. Site supports one of the densest breeding populations in the mid-Atlantic.
[e]Over-summering migrants from Southeast. Numerous communal roosts. Site represents one of the most important summer concentrations in Eastern North America.
[f]Over-wintering migrants from Northeast. Largest winter concentration area known for Virginia. Several communal roosts.
[g]Species breeds within appropriate marsh habitat in lower portion of IBA. Surveys conducted along portions of Catpoint Creek only. Broader population not assessed. Population likely exceeds threshold.
[h]Species breeds within appropriate marsh habitat in lower portion of IBA. Surveys conducted along portions of Catpoint Creek only. Broader population not assessed. Population likely exceeds threshold.
[i]Species breeds in offshore duck blinds, within farm buildings, in cavity within river bank (Fones Cliffs), and nest boxes (eggs in box at Tayloe). Enough pairs known to meet criteria but no systematic survey for area attempted.
[j]Extensive habitat for this species within the area. Area likely meets population threshold. No population estimate available.

[k]Species breeds on eastern edge of IBA in Island Farm Marsh a tract of the Rappahannock River Valley NWR. No systematic survey of population available but does not reach threshold.
[l]Species breeds throughout area in appropriate habitat. Area likely meets threshold. No systematic survey or population estimate available.
[m]Area very likely to meet population threshold. Species winters in area and roosts in forested wetlands. No population estimate for broader area.
[n]Area not likely to meet population threshold. Species is regular breeder. No population estimate has been made.
[o]Area likely to meet population threshold. Species has declined. No population estimate is available.
[p]Area may reach population threshold. No overall population estimate.
[q]Species breeds in forested wetlands but does not likely reach population threshold. No overall population estimate.
[r]Species breeds in dry forests but does not likely reach population threshold. No overall population estimate.
[s]Species common along marsh edges, shrublands, and regenerating pinelands and likely reaches population threshold. No overall population estimate.
[t]Species breeds along forested ravines. May reach population threshold. No overall population estimate.
[u]Species breeds in low forests but does not likely reach population threshold. No overall population estimate.
[v]Species is common breeder and habitat is extensive. Population almost certainly meets threshold.
[w]Species is common breeder and habitat is extensive. Population almost certainly meets threshold.
[x]Species is common breeder and habitat is extensive. Population almost certainly meets threshold.
[y]Small colony documented on Mount Landing Creek bridge.
[z]Several relatively small colony located within area.

III B. Source Details

Detail the sources of data noted in the "Species List and Population Data" (III A) Section. If additional space is needed, you may attach copies of this form to the nomination.

1. Watts, B. D., M. D. Wilson, F. M. Smith, B. J. Paxton, and B. Williams. Breeding range extension of the Coastal Plain Swamp Sparrow. Manuscript submitted to the Wilson Bulletin.

2. Singing bird detected during breeding bird survey (Sandy Spencer, pers comm.)

3. Watts, B. D. A survey of duck blinds for nesting birds within the Chesapeake Bay. Unpublished data.

4. Watts, B. D. and M. A. Byrd. 2006. Virginia Bald Eagle nest and productivity survey: Year 2006 report. Center for Conservation Biology Technical Report Series, CCBTR-06-11. College of William and Mary, Williamsburg, VA 31 pp.

5. Watts, B. D. 1998. Investigation of bald eagles within the Rappahannock River Concentration Area. Center for Conservation Biology Technical Report, CCBTR-98-02. College of William and Mary, Williamsburg, VA. 65pp.

6. Portlock, W. S. 1994. Rappahannock River bald eagles. *The Raven*. 65:38-43.

7. Watts, B. D. 2006. Biological Assessment for Bald Eagle Route 624 Bridge Replacement, Cat Point Creek. Center for Conservation Biology Technical Report Series, CCBTR-06-04. College of William and Mary, Williamsburg, VA. 37 pp.

8. Winter Bald Eagle survey of Rappahannock River Concentration Area (Jeff Cooper, Sandy Spencer, Bill Portlock).

9. Spencer, S. 2002-2005. Survey of habitats within various tracts of Rappahannock River Valley National Wildlife Refuge and surroundings. Unpublished Data maintained at refuge office.

10. Watts, B. D. and D. M. Whalen. 2005. An evaluation of nest box use by Common Barn Owls in Virginia. *The Raven* 75:71-77.

11. Spencer, S. and M. Wilson. 2005. Observations on Island Farm Marsh. Unpublished Data.

12. Watts, B. D., M. A. Byrd, and M. U. Watts. 1996. Status and distribution of Cliff Swallows in coastal Virginia. *The Raven* 67:21-24.

13. Watts, B. D. 2004. Status and distribution of colonial waterbirds in coastal Virginia: 2003 breeding season. CCBTR-04-06. Center for Conservation Biology, College of William and Mary, Williamsburg, VA 25 pp.

Site Name: Rappahannock River Tidal Fresh

IV. IBA Criteria

Proposed State Level Criteria – Mark all that apply
See Instruction IV for **Explanations of Criteria**.

Code	State Definition	Mark all criteria that apply
D 1.	Endangered, threatened, or vulnerable species: The site sustains a breeding or non-breeding population of one or more bird species, sub-species, or isolated populations that is/are endangered, threatened or vulnerable to extirpation.	Yes
D 3.	The site contains a significant suite of species associated with a habitat type that is representative, rare, or threatened in Virginia.	Yes
D 4.	The site contains a significant concentration of one or more species during the breeding season, winter, or during migration.	Yes

V. Habitat Details

See Instruction **V** for **List of Habitats** at both levels below.

	Major vegetation community types	Predominant plant species	Cover %
1.	Mixed Forest	Loblolly pine	18843 ha
		Various oaks, red maple, ashes, hickories	
2.	Row Crops Idle Grassland	Corn, soy beans, cotton	17767 ha
		Various grass species	
3.	Forested Wetlands	Red maple	2747 ha
4.	Oligohaline, Tidal Fresh Marshes	*Peltandra*	2263 ha
		Wild rice	

		Spartina cynosuroides	

Site Name: Rappahannock River Tidal Fresh

VI. Land Use

See Instruction VI for description of **Land Uses**. Mark each land use at the site, circle its predominance, and (if known) provide an estimate of the percent cover at the site currently devoted to the land use. You may enter brief notes to clarify some land uses. Detailed explanations of land uses should be reported in Text Summary, section IX.

Check Here	Land Use	Predominance			Cover %	Notes
X	Agriculture 1. Row crops, small grains	**Major**	Minor	Unknown		
X	Agriculture 2. Grasslands (pasture, hay)	Major	**Minor**	Unknown		
X	Fisheries/aquaculture	Major	**Minor**	Unknown		
X	Forestry	Major	**Minor**	Unknown		
X	Hunting	**Major**	Minor	Unknown		
	Military	Major	**Minor**	Unknown		
X	Nature Conservation / research	**Major**	Minor	Unknown		
	Not utilized	Major	Minor	Unknown		
	Other	Major	Minor	Unknown		
X	Tourism / recreation	Major	**Minor**	Unknown		
	Unknown	Major	Minor	Unknown		
X	Urban / industrial / transport	Major	**Minor**	Unknown		
	Water management	Major	Minor	Unknown		

VII. Threats

See Instruction VII for description of **Threat Codes.** Indicate all threats and the relative level of the threat by entering (L) Low, (M) Medium, (H) high, (U) Unknown in front of all that apply. You may enter notes to clarify some threats. However, detailed explanations of threats should be reported in Text Summary, section IX.

Enter L,M,H,U	Threat	Notes
L	Abandonment/land management reduction	
L	Agricultural expansion/intensification	
L	Aquaculture/fisheries	Contamination of fisheries (prey base)
L	Burning of vegetation	
L	Dam/dyke/barrage construction/operations	
M	Disturbance to birds	Boating activity
L	Draining wetlands	
L	Dredging/canal building (irrigation)	
L	Filling wetlands	
L	Forest grazing (by native or domestic herbivores)	
M	Groundwater extraction	
M	Industrialization/urbanization	Residential development
M	Infrastructure (roads, power lines, cell towers, etc.)	Residential development
L	Intensified forest management (please elaborate)	
L	Isolation/fragmentation	
M	Mineral/oil/peat extraction	Sand mining

M	Natural events	Erosion of tidal fresh marshes
M	Nonnative (exotic) animal/plant introduction	Expansion of exotics
L	Other	
L	Pesticide application (non-agricultural)	
L	Plantation forestry (Afforestation) on previously open land	
L	Recreation/tourism	
L	Unsustainable exploitation of birds	

Site Name: Rappahannock River Tidal Fresh

VIII. Protected Areas

Complete only if this site contains or abuts protected area(s)!

Enter name and descriptions of protected areas contained within or adjacent to this site.
See **Instruction VIII**

1. Name of protected area: Rappahannock River Valley River National Wildlife Refuge – U.S. Fish and Wildlife Service	
Designation:	**Area:** circle one: hectares, acres, sq. miles
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, Is contained by IBA, **Overlaps with IBA**, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles **2288.5**

2. Name of protected area: Fort A.P. Hill	
Designation:	**Area:** circle one: hectares, acres, sq. miles
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, Is contained by IBA, **Overlaps with IBA**, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles **2083.8**

3. Name of protected area: Vorhees Nature Preserve - TNC	
Designation:	**Area:** circle one: **hectares**, acres, sq. miles **298.9**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one**: hectares**, acres, sq. miles **298.9**

2. Name of protected area: Lands End – Virginia Department of Game & Inland Fisheries	
Designation:	**Area:** circle one**: hectares**, acres, sq. miles **180.3**
Relationship: Circle one	**Overlap:** circle one: **hectares,** acres, sq.

Protected area **contains** IBA, Is adjacent to IBA, I**s contained by IBA,** Overlaps with IBA, Unknown	miles **180.3**

IX. Text Summary

Use the following space for additional descriptions of site details.

General Site Description: The tidal fresh reach of the Rappahannock River included in this IBA extends from the mouth of Little Carter Creek just below the Tappahannock Bridge to Cleve Marsh just above Port Royal. This portion of the Rappahannock supports one of the largest winter and summer concentrations of Bald Eagles in Eastern North America and one of the densest breeding populations in Virginia. The river also supports growing populations of breeding Ospreys and Great Blue Herons. The only known population of the Coastal Swamp Sparrow in Virginia breeds within this area. The river supports extensive forested wetlands that support breeding Prothonotary Warblers, wintering Rusty Blackbirds, and many associated species. Surrounding uplands are composed of rural farmlands that support some of the largest grassland bird populations in the Coastal Plain.

General Ornithological Information: The tidal fresh reach of the Rappahannock River and surrounding lands has been the focus of bird surveys and research primarily since the 1980s. Surveys of colonial waterbirds have been conducted since the early 1980s. Work with summer migrant Bald Eagles was initiated in the mid 1980s including the identification of communal roosts and investigation of eagle-human interactions. Work with wintering Bald Eagles was initiated during this same period and has intensified in recent years. A systematic survey of exposed banks, duck blinds, and Osprey was conducted in 1995. Surveys of grassland and marsh birds within the National Wildlife Refuge have been conducted in recent years. A study of Bald Eagle diet and chick growth was conducted in 2002-2004. A preliminary study of Coastal Swamp Sparrows was initiated in 2005. A study of the Osprey population was initiated in 2006. Although many studies have been conducted within this area, population estimates for several species of conservation concern have not been produced.

Research / conservation projects: A large number of research and conservation projects have been conducted within this area over the past few decades.

Habitat / Land Use: The delineated area includes most of the tidal fresh reach of the Rappahannock River, associated emergent and forested wetlands, and the surrounding rural landscape that includes extensive farmland and mixed forest. Landuse is primarily farming with an increasing component of residential and urban development.

Other Flora / Fauna:

Protected Areas: An important portion of the area is owned and protected to meet conservation, management, and educational objectives. Holders include the U.S. Fish and Wildlife Service, U.S. Department of Defense, the Virginia Department of Game and Inland Fisheries, and The Nature Conservancy.

Threats: Four primary threats are currently of concern including 1) conversion of open land to residential, 2) expansion of recreational boating access to sensitive portions of the river, 3)

contaminants within the fishery used by piscivorous birds, and 4) continued expansion of phragmites into sensitive marsh habitats. The urban centers of Fredericksburg and Tappahannock are expanding and expected to place pressure on the rural lands within this area in the future. Waterfront property is particularly vulnerable to future development. Since many of the species that depend on this area are sensitive to development, caution is warranted. The reach of the river between Tappahannock and Port Royal supports one of the largest winter and summer concentrations of migrant Bald Eagles in eastern North America. These birds have been shown to be very sensitive to boating activity. Increases in boating activity and the number of boat access points within this stretch will negatively impact migrant eagles. Because of the position of these birds within the food web, they will always be vulnerable to new contaminants entering the system. Due to the role that this location plays in the ecology of Bald Eagle populations along the entire Atlantic Coast, vigilance is warranted. Dispersal of the exotic phragmites from the large source population on Hoskins Creek into surrounding pristine marshes continues to be of concern.

Potomac River Tidal Fresh Important Bird Area
Fact Sheet

Location: Fairfax, Stafford, King George, and Prince William Counties
Total Size : 113,775 ha (281,024 acres)
Elevation: 0-86 m (0-282 feet)

Site Description: The tidal fresh/oligohaline reach of the Potomac River included in the IBA extends from Mathias Point to just above Fort Belvoir. The river is wide along this stretch with several large tributaries. Tributaries contain considerable emergent and forested wetlands. Surrounding uplands support extensive tracts of hardwoods that are increasingly giving way to residential development. The area lies within the extreme inner coastal plain and has a great deal of topographic relief that has lead to the development of a diversity of upland habitats. Due to its close proximity to the nation's capital, the area includes many historic properties and landmarks.

Protection: Due to its size, history, and proximity to Washington D.C., the tidal fresh reach of the Potomac contains many tracts of land dedicated to conservation, education, military training, and recreation. Both the U.S. Fish and Wildlife Service and the U.S. Department of Defense hold lands that are strategically important for conservation. The state of Virginia also maintains several tracts of land that are state parks or natural area preserves. The regional park authority and individual counties own other lands for recreational access.

Bald Eagle Nestling

Birds: Due to its proximity to Washington D.C., the upper tidal reach of the Potomac River has been the focus of intensive ornithological observation for 200 years by prominent ornithologists stationed in the area. The landscape and bird community have changed dramatically over this time period. One of only 2 known breeding locations for the Bachman's Warbler in Virginia was located within the area. Currently, the area supports a significant community of piscivorous bird species. This includes one of the largest Great Blue Heron colonies within the mid-Atlantic region, a dense breeding population of Bald Eagles, and both a summer and winter concentration area for migrant Bald Eagles. The rich hardwood forests are strategically important for local breeding populations of neotropical migrants, as well as, stopover areas for northern populations moving through the region in the fall. The waterways support significant populations of waterfowl during migration and winter.

Conservation and Threats: The dominant threat to the avifauna within this area is the loss of habitat to urban expansion extending down the river from Washington D.C.. Jurisdictions within the area are experiencing some of the fastest human growth rates in the nation. This growth is causing the rapid loss of habitat for many species. All of the

upland habitats are in immediate danger from development. The increase in the human population has lead to an increase in the demand for access to the waterway for recreational boating. Increase in boating activity and associated disturbance is the greatest threat to the Bald Eagle concentration area. In recent years, increases in disturbance along important shorelines appear to be limiting Bald Eagle use of the area during peak time of the year. In the future, rapid development of private lands will elevate the importance of government and conservation lands for the management of sensitive species. Maintaining continuity in the mission of these lands as it pertains to population protection will be important.

Important Bird Areas of Virginia

IBA Nomination Form

The Important Bird Area (IBA) program is an international effort to identify, conserve, and monitor a network of sites that provide essential habitat for bird populations. BirdLife International began the IBA program in Europe in 1985. Since that time, BirdLife partners in more than 100 countries have joined together to build the global IBA network. Audubon, the BirdLife Partner in the U.S. has been working since 1995 to identify and conserve hundreds of IBAs all across the United States.

For more information, visit: http://www.audubon.org/bird/iba/index.html
Or contact Aimee Weldon, the Virginia IBA Coordinator
P.O. Box 1089, Ashland, VA 23005 aweldon@audubon.org 804-370-3528
Additional copies of the Nomination Form may be downloaded from www.virginia-iba.org

Thank you for your interest in the Important Bird Areas Program. Please tell us about the areas that you think may meet the criteria by completing as much of this form as possible. Detailed instructions for fields requiring clarification may be found in the **INSTRUCTIONS FOR COMPLETION OF IBA NOMINATION FORM**. It is important that the data and information about the sites are recorded in a standard format, so that they may be accurately evaluated.

I. Nominator Information	
YOUR NAME: **Bryan D. Watts**	PHONE: **(757) 221-2247**
AFFILIATION(if any) **Center for Conservation Biology College of William and Mary**	EMAIL: **bdwatt@wm.edu**
ADDRESS: **PO Box 8795**	
ZIP CITY, STATE, **Williamsburg, VA 23187-8795**	DATE: **12/3/06**

II. Site Details	
SITE NAME: **Potomac River Tidal Fresh**	
CITY,TOWN,COUNTY: **Fairfax, Stafford, King George, and Prince William Counties**	AREA: **113775** (circle one) acres, sq. miles., **hectares**
ELEVATION: Minimum **0** (circle one) feet, **meters**	ELEVATION: Maximum **86** feet, **meters**
COORDINATES (at site center) Latitude **38° 28' 50"**	Longitude: **-77° 19' 58"**

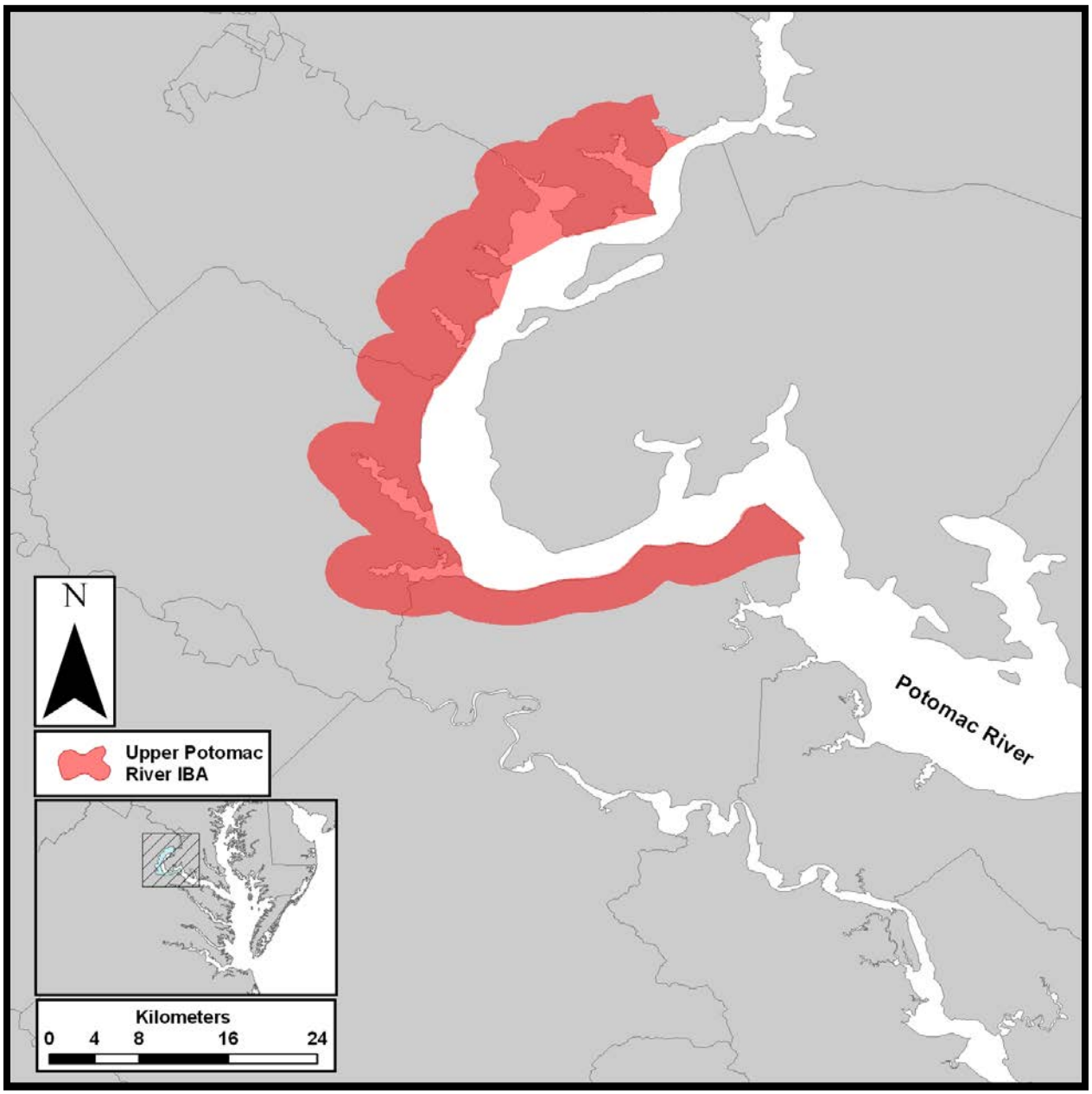
Ownership: (Circle One) **federal, state, private**, international waters, communal, religious group, mixed, other

Ownership Details: (List owners. If "other" ownership, please describe. If the property is privately owned, please provide contact information and specify if owner is aware of nomination)

United States Fish and Wildlife Service
United States Department of Defense

Virginia Regional Park Authority
Virginia Department of Conservation and Recreation
Fairfax County
Prince William County
King George County
Many private holdings

Road Directions to site (or location /distance to nearest town) Please include a map if convenient.



Site Name: James River Tidal Fresh

III A. Species List and Population Data

List the species of significance. Provide all other information at your disposal (note: Types of Birds Counted is required). Each record should represent a count at the site in a given year. **Please use the following codes when completing this chart.**

1. **Relative Abundance:** Abundant = **A,** Common = **C**, Frequent = **F**, Uncommon = **U**, Rare = **R**, Not available = **NA**
2. **Count:** For all species, enter either **Density** (# per unit of area), please specify ha, acres, sq. mi. or **Max #.** **Max #** is the highest # observed on one visit in a given season. Total season counts may be entered for migrating raptors only.
3. **Types of Birds Counted:** Individuals = **I**, Breeding Pairs = **B**, Adults only = **A** , Males only = **M,** Females only**= F,** Nests = **N**
4. **Reliability/Data quality:** Good = **G**, Medium = **M**, Poor = **P**, Unknown = **Un**
5. **Source:** Enter the number of the source in this box, and list corresponding details of the sources in Source Details (IIIB) section. Sources may include published reports, surveys, personal observations or field notes.

( ) values represent population thresholds per the Virginia IBA instructions.

Species Name	Season Month/Day of Observation	Year of Observation	[1]Relative Abundance	[2]Counts		[3]Types of Birds Counted	[4]Reliability /Data Quality	[5]Source
				All Groups	Migrating Raptors Only			
				Density # /___ area or Max # / visit	Total Season Count			
Bald Eagle (breeding)	Spring	2006		**42**[a](30)		B	G	1
Bald Eagle (summer)	Summer	2006		**169**[b](100)		I	G	2
Bald Eagle (winter)	Winter	2006		288[c](100)		I	G	3
King Rail	Summer		**U**[d](30)					
Least Bittern	Summer		**U**[e](20)					
Redhead	Winter	2002		**53**[f](500)		I	Un	4
Northern Harrier	Winter	1999		**25**[g](?)		I	Un	5
Barn Owl	Summer	1997		**2**[hl](5)		B	Un	6
American Woodcock	Summer		**U**[i](50)					
Red-hded Woodpecker	Winter	2004		**37**[j](60)		I	Un	7
Rusty Blackbird	Winter	1999		**287**[k](200)		I	Un	5
Whip-poor-will	Summer		**U**[l](500)					
Northern Bobwhite	Winter	2004		**13w**[m](100)		I	Un	7
Wood Thrush	Summer		**C**[n](1000)					

Worm-eating Warbler	Summer		**C**[o](100)						
Prairie Warbler	Summer		**C**[p](500)						
Louisiana Waterthrush	Summer		**C**[q](200)						
Kentucky Warbler	Summer		**R**[r](200)						
Eastern Meadowlark	Winter	2004			**39w**[s](200)		I	Un	7
Grasshopper Sparrow	Summer		**C**[t](200)						
Field Sparrow	Summer		**C**[u](200)						
Colonial Species									
Great Blue Heron	Spring	2003			**2030**[v]		B	G	8
Great Egret	Spring	2003			**20**[w]		B	G	8

[a]Area supports one of the densest breeding populations in the state.
[b]Over-summering migrants from Southeast. Numerous communal roosts. Site represents one of the most important summer concentrations in Eastern North America.
[c]Over-wintering migrants from Northeast. One of the largest winter concentrations in Bay. Several communal roosts are known.
[d]Considerable habitat available within area. Population likely exceeds population threshold. No population assessment available.
[e]Considerable habitat available within area. Population likely exceeds population threshold. No population assessment available.
[f]Wintering population does not likely meet threshold in most years.
[g]Habitat for this species is limited. Wintering population not significant.
[h]Habitat within the area is limited for this species. It is unlikely that the area reaches the population threshold. No systematic survey available.
[i]Ample habitat within area for this species. Population may reach threshold. No population estimate available.
[j]Considerable habitat available within area. Area almost certainly meets threshold. CBC data does not adequately cover the area. No population estimate available.
[k]Considerable habitat within the area for this species. Area likely exceeds threshold during most winters.
[l]Area contains appropriate habitat but does not likely support population that meets threshold. No population estimate available.
[m]Species has declined dramatically and habitat limited within area. Population does not likely meet threshold. No estimate available.
[n]Species is one of the most common forest species in the area. Extensive habitat available. Species almost certainly meets population threshold. No population estimate available.
[o]Species is a common forest species in the area. Extensive habitat available. Species almost certainly meets population threshold. No population estimate available.
[p]Species is common along marsh edges, within shrubby fields, and clearcuts. Considerable habitat available. Species almost certainly meets population threshold. No population estimate available.

[q]Species is a common forest species in the area. Extensive habitat available. Species almost certainly meets population threshold. No population estimate available.
[r]Habitat for this species is limited and area is not likely to meet population threshold. No overall population estimate available.
[s]Habitat for this species is limited within the area but area likely to meet population threshold. No systematic population estimate available.
[t]Habitat for this species is limited within the area but area likely to meet population threshold. No systematic population estimate available.
[u]Species is common along marsh edges, within shrubby fields, and clearcuts. Considerable habitat available. Species almost certainly meets population threshold. No population estimate available.
[v]Area supports approximately 20% of known state population including the largest colony in the state.
[w]Area supports less than 1% of the state population.

III B. Source Details

Detail the sources of data noted in the "Species List and Population Data" (III A) Section. If additional space is needed, you may attach copies of this form to the nomination.

1. Watts, B. D. and M. A. Byrd. 2006. Virginia Bald Eagle nest and productivity survey: Year 2006 report. Center for Conservation Biology Technical Report Series, CCBTR-06-11. College of William and Mary, Williamsburg, VA 31 pp.

2. Cooper, J. 2006. Survey of Potomac River Bald Eagle Concentration Area: June 21-22, 2006. Unpublished data.

3. Cooper, J. 2006. Survey of Potomac River Bald Eagle Concentration Area from Rt 301 to Pohick: winter 2006. Unpublished data

4. Kain, T. 2002. Virginia Christmas Bird Counts: 2001-2002 season. Raven 73:17-54.

5. Kain, T. 1999. Virginia Christmas Bird Counts: 1998-1999 season. *The Raven* 70:53-86.

6. Watts, B. D. and D. M. Whalen. 2005. An evaluation of nest box use by Common Barn Owls in Virginia. *The Raven* 75:71-77.

7. Kain, T. 2004. Virginia Christmas Bird Counts: 2003-2004 season. *The Raven* 75:16-60.

8. Watts, B. D. 2004. Status and distribution of colonial waterbirds in coastal Virginia: 2003 breeding season. CCBTR-04-06. Center for Conservation Biology, College of William and Mary, Williamsburg, VA 25 pp.

IV. IBA Criteria

Proposed State Level Criteria – Mark all that apply
See Instruction IV for **Explanations of Criteria**.

Code	State Definition	Mark all criteria that apply
D 1.	Endangered, threatened, or vulnerable species: The site sustains a breeding or non-breeding population of one or more bird species, sub-species, or isolated populations that is/are endangered, threatened or vulnerable to extirpation.	Yes
D 3.	The site contains a significant suite of species associated with a habitat type that is representative, rare, or threatened in Virginia.	Yes
D 4.	The site contains a significant concentration of one or more species during the breeding season, winter, or during migration.	Yes

V. Habitat Details

See Instruction **V** for **List of Habitats** at both levels below.

	Major vegetation community types	Predominant plant species	Cover %
	Pine Plantation	Loblolly pine	1189 ha
	Mixed Forest	Loblolly Pine	194 ha
		Various oaks	
		Red Maple	
1.	Deciduous Forest	Various oaks	24105 ha
		Hickories	
		Red maple	
		American beech	
2.	Row Crops Pasture Idle Grassland	Corn, soy beans, cotton	6245 ha
		Various grass species	

3.	Forested Wetlands	Red maple	1251 ha
4.	Oligohaline, Tidal Fresh Marshes	Paltandra	529 ha
		Wild rice	
		Spartina Cynosuroides	

Site Name: James River Tidal Fresh

VI. Land Use

See Instruction VI for description of **Land Uses**. Mark each land use at the site, circle its predominance, and (if known) provide an estimate of the percent cover at the site currently devoted to the land use. You may enter brief notes to clarify some land uses. Detailed explanations of land uses should be reported in Text Summary, section IX.

Check Here	Land Use	Predominance			Cover %	Notes
X	Agriculture 1. Row crops, small grains	Major	**Minor**	Unknown		
	Agriculture 2. Grasslands (pasture, hay)	Major	**Minor**	Unknown		
X	Fisheries/aquaculture	Major	**Minor**	Unknown		
X	Forestry	Major	**Minor**	Unknown		
X	Hunting	Major	**Minor**	Unknown		
	Military	**Major**	**Minor**	Unknown		
X	Nature Conservation / research	**Major**	Minor	Unknown		
	Not utilized	Major	Minor	Unknown		
	Other	Major	Minor	Unknown		
X	Tourism / recreation	Major	**Minor**	Unknown		
	Unknown	Major	Minor	Unknown		
X	Urban / industrial / transport	**Major**	Minor	Unknown		Increasing
	Water management	Major	**Minor**	Unknown		

VII. Threats

See Instruction VII for description of **Threat Codes.** Indicate all threats and the relative level of the threat by entering (L) Low, (M) Medium, (H) high, (U) Unknown in front of all that apply. You may enter notes to clarify some threats. However, detailed explanations of threats should be reported in Text Summary, section IX.

Enter L,M,H,U	Threat	Notes
L	Abandonment/land management reduction	
L	Agricultural expansion/intensification	
L	Aquaculture/fisheries	
L	Burning of vegetation	
L	Dam/dyke/barrage construction/operations	
H	Disturbance to birds	Boating activity
L	Draining wetlands	
L	Dredging/canal building (irrigation)	
L	Filling wetlands	
L	Forest grazing (by native or domestic herbivores)	

L	Groundwater extraction	
H	Industrialization/urbanization	Residential development
H	Infrastructure (roads, power lines, cell towers, etc.)	Residential development
L	Intensified forest management (please elaborate)	
L	Isolation/fragmentation	
L	Mineral/oil/peat extraction	Sand mining
M	Natural events	Erosion of tidal fresh marshes
M	Nonnative (exotic) animal/plant introduction	Expansion of exotics
L	Other	
L	Pesticide application (non-agricultural)	
L	Plantation forestry (Afforestation) on previously open land	
M	Recreation/tourism	
L	Unsustainable exploitation of birds	

VIII. Protected Areas

Complete only if this site contains or abuts protected area(s)!

Enter name and descriptions of protected areas contained within or adjacent to this site.
See **Instruction VIII**

1. Name of protected area: Mason Neck National Wildlife Refuge – U.S. Fish and Wildlife Service	
Designation:	**Area:** **927.8** circle one: **hectares**, acres, sq. miles
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles

2. Name of protected area: Occoquan National Wildlife Refuge – U.S. Fish and Wildlife Service	
Designation:	**Area:** **265.3** circle one: **hectares,** acres, sq. miles
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles

3. Name of protected area: Featherstone National Wildlife Refuge – U.S. Fish and Wildlife Service	
Designation:	**Area:** **133.3** circle one: **hectares,** acres, sq. miles
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one**: hectares**, acres, sq. miles

4. Name of protected area: Quantico Marina Base – U.S. Department of Defense	
Designation:	**Area:** circle one: **hectares**, acres, sq. miles
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, Is contained by IBA, **Overlaps with IBA**, Unknown	**Overlap:** **3323.3** circle one**: hectares**, acres, sq. miles

5. Name of protected area: Fort Belvoir – U.S. Department of Defense	
Designation:	**Area:** circle one**: hectares**, acres, sq. miles
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, Is contained by IBA, **Overlaps with IBA**, Unknown	**Overlap:** **2101.1** circle one: **hectares**, acres, sq. miles

6. Name of protected area: Accotink Bay Wildlife Refuge – U.S. Department of Defense	
Designation:	**Area:** **602.9** circle one: **hectares**, acres, sq. miles

Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles

7. Name of protected area: Jackson Miles Abbott Wetland Refuge – U.S. Department of Defense	
Designation:	**Area:** circle one: **hectares,** acres, sq. miles
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, Is contained by IBA, **Overlaps with IBA**, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles **24.1**

8. Name of protected area: Prince William Forest Park – National Park Service	
Designation:	**Area:** circle one: **hectares,** acres, sq. miles
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, Is contained by IBA, **Overlaps with IBA**, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles **327.2**

8. Name of protected area: Leesylvania State Park – Virginia Department of Conservation and Recreation	
Designation:	**Area:** circle one**: hectares**, acres, sq. miles **198.2**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA**,** Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles

8. Name of protected area: Mason Neck State Park – Virginia Department of Conservation and Recreation	
Designation:	**Area:** circle one**: hectares**, acres, sq. miles **742.6**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles

8. Name of protected area: Caledon State Natural Area – Virginia Department of Conservation and Recreation	
Designation:	**Area:** circle one: **hectares,** acres, sq. miles **1010.8**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles

8. Name of protected area: Chotank Creek State Natural Area – Virginia Department of Conservation and Recreation	
Designation:	**Area:** circle one: **hectares,** acres, sq. miles **448.5**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles

8. Name of protected area: Pohick Bay Regional Park – Virginia Regional Park Authority	
Designation:	**Area:** **405.0** circle one: **hectares,** acres, sq. miles
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles

8. Name of protected area: Occoquan Regional Park – Virginia Regional Park Authority	
Designation:	**Area:** **51.6** circle one: **hectares,** acres, sq. miles
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles

8. Name of protected area: Locust Shade Park – Prince William County	
Designation:	**Area:** **149.8** circle one: **hectares,** acres, sq. miles
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles

8. Name of protected area: Barnsfield Park – King George County	
Designation:	**Area:** **43.7** circle one: **hectares,** acres, sq. miles
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles

IX. Text Summary

Use the following space for additional descriptions of site details.

General Site Description: The tidal fresh-oligohaline reach of the Potomac River included in this IBA extends along the south shoreline from Mathias Point to just above Fort Belvoir including associated large creeks and surrounding uplands. This portion of the Potomac supports a significant community of piscivorous species including Bald Eagles, Great Blue Herons, and Osprey. The Bald Eagle concentration is one of the largest in Eastern North America and is comprised of the resident breeding population, northern migrants from eastern Canada and New England, and southern migrants from Florida and South Carolina. One of the largest heron colonies within the mid-Atlantic region is located on Mason Neck. The Osprey population is growing rapidly. Brackish and tidal-fresh marshes likely support important populations of King Rails, Least Bitterns, and Coastal Swamp Sparrows but have not been fully explored. Forested wetlands support wintering Rusty Blackbirds and a diverse breeding community. Mixed upland forests support large populations of breeding neotropical migrants and appear to be critical as high-quality stopover areas during fall migration.

General Ornithological Information: Due to its proximity to Washington D.C., the upper tidal reach of the Potomac has been the focus of intensive ornithological observation for 200 years by prominent

ornithologists stationed in the area. This has resulted in the documentation of community change over more than a century as the area changed from a rural to urban landscape. One of only 2 known breeding locations for the Bachman's Warbler in Virginia was located within the area. Two prominent Christmas Bird Counts are located within the area. In the 1950s Abbott initiated several investigations including the annual Virginia Bald Eagle nest survey and surveys of heron colonies. Winter waterfowl have been surveyed since the late 1950s. Colonial Waterbirds have been surveyed throughout the area since the 1970s. Investigations of Bald Eagles along the Caledon shoreline were initiated in the early 1980s. Several MAPS stations have been operated within the area during different times since the early 1990s. Osprey and bank-nesting birds were surveyed throughout the area in 1995. More recently, the summer and winter Bald Eagle surveys have been intensified to document the temporal and spatial distribution of migrant eagles. Surveys of birds within refuge and other conservation lands have been conducted in recent years. Although many studies have been conducted within this area, population estimates for several species of conservation concern have not been produced.

Research / conservation projects: A large number of research and conservation projects have been conducted within this area since the early 1900s. The number of projects focusing on this area has increased since the early 1980s, though many gaps in understanding persist.

Habitat / Land Use: The delineated area includes the southern shoreline, associated creeks, and surrounding uplands. Landuse is dominated by forestland with interspersed farmland but is rapidly giving way to urban development extending down the river from Washington D.C.

Other Flora / Fauna:

Protected Areas: An important portion of the area is owned and protected to meet conservation, management, and military needs. Major holders include the U.S. Department of Defense, U.S. Fish and Wildlife Service, Virginia Department of Conservation and Recreation, the regional park authority, and the individual counties.

Threats: The dominant threat to the avifauna within this area is the loss of habitat to urban expansion extending down the river from Washington D.C.. Jurisdictions within the area are experiencing some of the fastest human growth rates in the nation. This growth is causing the rapid loss of habitat for many species. All of the upland habitats are in immediate danger from development. The increase in the human population has lead to an increase in the demand for access to the waterway for recreational boating. Increase in boating activity and associated disturbance is the greatest threat to the Bald Eagle concentration area. In recent years, increases in disturbance along important shorelines appear to be limiting Bald Eagle use of the area during peak time of the year. In the future, rapid development of private lands will elevate the importance of government and conservation lands for the management of sensitive species. Maintaining continuity in the mission of these lands as it pertains to population protection will be important.

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